IN THE SUPERIOR COURT OF THE STATE OF ARIZONA IN AND FOR THE COUNTY OF YAVAPAI

	FILED O'ClockM.
	JUL 1 3 2011
STATE OF ARIZONA,) SANDRA K MARKHAM, Clerk) By: <u>Karen Wilkes</u>
Plaintiff,)
vs.) Case No. CR 2008-1339
STEVEN CARROLL DEMOCKER,)
Defendant.)))

Prescott, Arizona

September 2, 2010

BEFORE THE HONORABLE WARREN R. DARROW

REPORTER'S TRANSCRIPT OF PROCEEDINGS
(Trial Day 44)



Reported by:

Ashlee Mangum

Registered Professional Reporter

Shorthand Reporter #50612

LOTT REPORTING, INC.

_316 North Alarcon Street

Prescott, Arizona 86301 928.776.1169

1 Prescott, Arizona September 2, 2010 2 3 BE IT REMEMBERED THAT the above-entitled 4 matter came on for Trial, Day 44, in the above-entitled 5 court, on the above-mentioned date, before the HONORABLE 6 WARREN R. DARROW, Judge of the Superior Court; 7 That the plaintiff was represented by JOSEPH BUTNER and JEFF PAUPORE, Deputy County Attorneys; 8 9 That the defendant was represented by JOHN 10 SEARS, LARRY HAMMOND and ANN CHAPMAN, Attorneys at Law. 11 WHEREUPON, the following proceedings were 12 had, to-wit: 13 14 THE COURT: We are on the record in State of 15 Arizona versus Steven Carroll DeMocker. The defendant, 16 and all the attorneys are present, the jury is present, 17 and the witness, Ms. Brown, is on the witness stand previously sworn. Mr. Paupore, you may continue your 18 19 direct. 20 Thank you, Your Honor. MR. PAUPORE: 21 Q. (Continued by MR. PAUPORE:) Good morning, 22 Alexis.

A. Good morning.

23

24

25

 \mathbb{Q} . Yesterday I was asking you about different categories of weights, grams, and nanograms, and I

-LOTT REPORTING, INC./928.776.1169

```
1
    wanted to, I was a little bit unclear as to how it is
 2
    broken down, weight wise.
 3
       Α.
           Yeah.
                   I was a little unclear on it yesterday as
 4
    well.
           But I've had a chance to recall it and what it is
 5
    is one gram equals 1,000 milligrams, one milligram
 6
    equals 1,000 microgram, and one microgram equals 1,000
 7
    nanograms.
 8
       Q.
           Okay. We are in the nanogram category?
 9
       Α.
           Yes.
10
       Q.
           And, for example, back to Item 603 left
11
    fingernails, the quantity of male DNA was .195
12
    nanograms?
           That's correct.
13
       Α.
14
       Q.
           We finished up with your report. We went through
15
    it kind of quickly yesterday in the interest of time.
16
    It was Exhibit 3226, that would be your April 27th
17
    forensic report that we amended.
18
                 MR. PAUPORE: And I would like, Your Honor,
19
    at this time, to publish this on the ELMO for the jury.
20
                 THE COURT: And the number again?
21
                 MR. PAUPORE:
                               Yes.
                                     3226.
22
                 THE COURT: Thank you. You may do that.
23
                 MR. HAMMOND: Your Honor, may I confer very
24
    briefly with counsel before he does that?
```

-LOTT REPORTING, INC./928.776.1169

Yes.

THE COURT:

MR. HAMMOND: Thank you, Your Honor.

THE COURT: You're welcome.

- Q. (Continued by MR. PAUPORE:) Let me know if you can see that. I think right in front of you is a laser pointer. Sometimes it works, sometimes you got to shake it. Can you see this portion, can you see that from where you are sitting?
- A. Yes. I can see.
 - Q. We went through Sorenson Item No. 7 all the way to 18 towards the end of yesterday. Do you recall that?
- 11 A. Yes, I do.

- Q. And this is Exhibit, again, 3226, it has been amended, and I want to point to that page where it was amended, and we were talking about Sorenson's No. 10B, left fingernail. Can you see that from where you are at?
- A. Yes. I can see it.
 - Q. Okay. You broke it, it's under, on page two of this, on page three of this exhibit, it's broken down under Item 10B, with two major paragraphs. That's how you did it?
- A. Yes. I made the general conclusion in sort of the first two sentences and then I spoke to the major DNA profile in the next paragraph, as you called it, and I spoke about the minor in the last paragraph.

- Q. And the first paragraph, I'll point to it with my pen, it's Y-STR DNA profiles from at least three males were obtained from this sample?

 A. Yes.

 Q. And that's broken down in the second paragraph of that --
 - A. The second paragraph addresses the major Y-STR
 - Q. And we talked about the major, it's an unknown profile; is that correct?
- 11 A. Yes.

2

3

4

5

6

7

8

9

10

12

13

15

17

18

19

21

22

23

24

25

- Q. And what was your conclusion as to comparing the unknown major Y-STR DNA profile with Mr. DeMocker?
- 14 A. Steven DeMocker was excluded.
 - Q. With comparison to the known sample of Mr. Knapp?
- A. He was excluded as well.

profile we had taken.

- Q. Okay. So next thing, you discuss your conclusions in paragraph, the one you just read from on the minor, from the minor mixture of Y-STR DNA?
- 20 A. Yes.
 - Q. And what were your conclusions again?
 - A. Steven DeMocker and his paternal relatives were excluded from the minor conclusion, and James Knapp, no comparison could be made to his reference sample.
 - Q. And this particular paragraph is the one you

-LOTT REPORTING, INC./928.776.1169

realized you had interposed the name?

- A. That's correct.
- Q. And that was on an earlier report?
- A. Yes.

1

2

3

4

5

6

7

8

17

18

19

- Q. We next talked about, back to that, Mr. DeMocker is excluded from the minor mixture and no meaningful comparisons could be made to Mr. Knapp, and the reason for that was, were both of those conclusions?
- 9 The exclusion was because there were two 10 particular places on the DNA where we did not find Mr. 11 DeMocker's DNA. For James Knapp, no meaningful 12 comparisons were made because there was a P-course 13 bonding on our graph to all of his DNA. There was one 14 location where it may have been his DNA or a stutter 15 artifact, but I couldn't say one way or the other so I 16 wasn't able to exclude or include him.
 - Q. Okay. But for purposes, you can't make a match on this minor mixture to anybody?
 - A. That's correct.
- Q. Anybody in the universe?
- 21 A. That's correct.
 - Q. Because not enough DNA information?
- A. I wouldn't be able to make a statistical, I
 wouldn't be able to give weight to that match with our
 statistics.

- Q. We then talked about Item 10C, Sorenson's Item 10C, and that's a swab from Virginia Kennedy's left hand. And what was your conclusion on that analysis?
- A. We attended Y-STR profiles from at least three males, but due to the limited genetic information and how complex the mixture was, we couldn't make any comparisons to anyone.
- Q. So the minor mixture from the swab on the left hand and the minor mixture from the DNA under her left fingernail are somewhat similar as far as results?
 - A. We weren't able to make any conclusions.
- Q. So you had even less genetic information from the swab on the left hand?
 - A. That's correct.

- Q. There is no way to know, is there, from the swab item, swab on the left hand Y-STR, any comparison that could be made to the minor mixtures under the DNA, under the left fingernails under item 603?
- A. No. No comparisons could be made to the left hand swab.
 - Q. We also talked about, we talked about everything on this page yesterday, but I just want to go to Item 12, the handset telephone, and what was your findings?
 - A. We got a, we did Y-STR-DNA testing, we got a mixture of at least two males. We were able to identify

a major Y-STR profile and found it was not the same major that we found on the fingernails. James Knapp and Steven DeMocker were both excluded as being that major donor and I believe the minor conclusions are on the next page.

- Q. Okay. And then that left sentence of that paragraph under Item 12 is where you compared the unknown major found on the handset telephone with the unknown major profile found under the left fingernail clippings?
- A. That's right, right there. It says it does not match.
- Q. And that is at least two males on that, in that item?
 - A. That's correct.

- Q. Now, we'll go to the minor Y-STR and this is again on that handset phone, what were your conclusions?
- A. James Knapp was excluded from the minor component and we weren't able to draw any meaningful comparison to Steven DeMocker's profile.
- Q. How were you able to -- this would actual apply to another exclusion you had for Mr. DeMocker under the fingernail. How were you able to exclude Mr. Knapp in this minor mixture?
 - A. Again, we look at his DNA and we look at the DNA

that we got from the profile and determined if there's

DNA present in the positions that represent his DNA. If

it is present, we can say no meaningful comparisons

because, again, we can't do the statistics on the match

on this minor profile. But if there are places where

his DNA isn't showing up, we are able to exclude and say

for sure he is not here.

- Q. And, conversely, when you say no meaningful comparisons could be made as to Mr. DeMocker's DNA, how are you able to come to, arrive at that conclusion?
- A. As I said, we look at the reference sample for the individual at what their DNA profile is, and we look at the evidence sample DNA profile and see if there is any places where the DNA sample is not showing up in the evidence sample. If there is sufficient evidence that the individual's DNA is not showing up, they are excluded.
- Q. This is done by an instrument or your examination of the results?
- 20 A. This is examination.
- Q. And you're examining the data that comes up from the genetic analyzer?
- 23 A. That's correct.

Q. As part of your review of the file, well, when Sorenson gets a case it is assigned a case number?

A. Yes.

1

3

7

8

9

- Q. And what is the case number in this case?
 - A. I'd have to look at my notes.
- Q. Let me just show you the exhibit we're talking about, 3226.
- 6 A. The case number is T151298.
 - Q. Does that T-number track through the entire file for this particular client?
 - A. Yes, it does.
- Q. And reports are generated as data is received from the client, in this case, the client was Yavapai County Sheriff's Office?
- 13 A. That's correct.
- Q. And the reports are generated at different times based upon the submission of evidence that your lab receives?
- 17 A. That's right.
- Q. And when, when did you receive the first evidence from Yavapai County Sheriff's Office?
- A. It was back in, back in 2008. I don't know the exact date, but prior to October, though.
- 22 Q. And did you review those reports?
- A. The reports from that testing, yes, I did review.
- Q. Did you author any reports back in 2008?
- A. No. I, myself, did not.

-LOTT REPORTING, INC./928.776.1169 -

- Q. Were they contained within the file that begins with the T letter?
 - A. Yes.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

- Q. And are they, are these records regularly kept as a business record of Sorenson?
- A. Yes.
 - Q. And did you rely and look at these earlier reports that are, before you began your analysis of the evidence that you were analyzing?
- A. I looked at the reports, yes, I did.
 - Q. Did you, when you looked at the reports, what do you mean by that?
- A. Well, I read the reports to see what items had been tested before, to see what conclusions had been drawn.
- Q. And did you reference any information, any data when you were looking at the reports to see if you agree with the conclusions?
- A. I did before I came here to testify just so that I could testify on the previous reports, but not before I generated my own reports.
- Q. You were aware of those reports in the general file?
- 24 A. Yes.
- Q. And I'm going to show you what's been marked for

-LOTT REPORTING, INC./928.776.1169

```
1
    identification purposes document Exhibit 3233, and ask
 2
    you if you recognize that document?
 3
            This is the first report that was generated in
    this case.
 4
 5
           And is that one of the reports that you had
 6
    looked at in preparation for your testimony?
 7
       Α.
                  I did look at this report.
 8
       Q.
           That was the first report that was generated for
 9
    Yavapai County Sheriff's Office?
10
           In this case, yes.
       Α.
11
                 MR. PAUPORE: State would offer that exhibit
12
    into evidence.
13
                 MR. HAMMOND: Objection. Foundation.
                                                          Your
14
    Honor, may I have voir dire questions?
15
                 THE COURT:
                            Yes.
16
                       VOIR DIRE EXAMINATION
17
    BY MR. HAMMOND:
18
           You had no personal involvement in the
19
    preparation of this report?
20
       Α.
           That's correct.
21
           You had no personal involvement in any of the
22
    background that went into the creation of this report?
23
       Α.
           That's correct.
24
           So you had nothing to do with the initial case
```

-LOTT REPORTING, INC./928.776.1169 -

25

consultation?

1 A. That's true.

- Q. You had nothing to do with the serology?
 - A. That's correct.
 - Q. You had nothing to do with what you call the lab wet work?
 - A. That's correct.
 - Q. You had nothing to do with the analysis?
 - A. That's true as well.
 - Q. And, indeed, you didn't even read the report in connection with the work you did on the part that you've already told us about in connection with what you call part three?
 - A. No. I did read the report. We did have the report in the part three case file and I did read the report. It wasn't, I didn't review the entire case file until just before coming here to court, though.
 - Q. But it wasn't part of what you needed to do in order to form the conclusions that you reached for your part?
 - A. Well, any time we do additional parts we read the previous reports.
- Q. I understand that. Answer my question, please.

 It had nothing to do with any of the conclusions that

 you reached in the report that you've told us about that

 has been admitted into evidence?

-LOTT REPORTING, INC./928.776.1169

A. That's true.

MR. HAMMOND: Your Honor, objection, foundation, confrontation, Crawford, Melendez-Diaz.

THE COURT: Sustained.

- Q. (Continued by MR. PAUPORE:) That Exhibit 3233, as a practice at Sorenson Laboratories, when are the records generated? After analysis is conducted by the DNA analyst?
 - A. I'm sorry, I don't understand the question.
- Q. When in time is a report at Sorenson generated after, for example, when you make an analysis as a DNA analyst, when do you generate your report?
- A. We generate the report at the same time as performing the analysis.
 - Q. Is that pursuant to a protocol at Sorenson?
- A. We do have a protocol that covers analysis, yes.
 - Q. And are they, are these reports made at or near the time of the analysis?
 - A. Yes. They usually are in conjunction with each other.
 - Q. And is the information as generated from the report made by a person with firsthand knowledge that is acquired during the analysis?
 - A. Yes. The person who forms the analysis is the one writing the report. So, yes, they would have

LOTT REPORTING, INC./928.776.1169

1 firsthand knowledge.

- Q. And these questions would also apply to the report that you generated?
- A. Yes.

2

3

- 5 Q. As part of the regularly conducted business at 6 Sorenson?
- 7 A. That's true.
- 9 The reports, and specifically the reports from
 this case made at Sorenson, are kept entirely in the
 course of Sorenson's regularly conducted business
 activity?
- A. Yes. It's our regular business to maintain all case files.
- Q. And it's your genuine record of what was done in that case?
- 16 A. Yes, it is.
- 17 Q. And is that report making, is that pursuant to a regular practice of Sorenson?
- A. Yes. We have a protocol that covers the report writing as well.
- 21 Q. And you are the quality assurance manager?
- 22 A. Yes.
- Q. And you have access and can have custody at any time of any of these records?
- 25 A. Yes.

```
1
                 MR. PAUPORE: Your Honor, I would submit
 2
    this exhibit under business records exception to the
 3
    hearsay rules.
                 THE COURT: Let me see the exhibit, please.
 4
 5
                 MR. PAUPORE:
                               3233?
                 THE COURT: Yes. Mr. Hammond, if you have a
 6
 7
    legal objection, legal grounds.
                               I do.
                                      Two more voir dire
 8
                 MR. HAMMOND:
 9
    questions and then I'll state the same objection.
10
                       VOIR DIRE EXAMINATION
    BY MR. HAMMOND:
11
12
           You were not the technical reviewer on the report
13
    that you have in front of you, 3233?
14
           Was that the report I was just shown a moment
15
    ago?
16
       0.
           Yes.
17
                 That's correct.
       Α.
           Yes.
18
       Q.
           Nor were you the administrator reviewer?
19
       Α.
           No. I was not.
20
           In fact, you had no involvement in the
       Q.
21
    preparation of this report in any way?
22
       Α.
           Just other than reviewing it before I came to
23
    court. That was it.
           Contemporaneously or any time near the
24
25
    preparation of this report in October of 2008 you had no
```

-LOTT REPORTING, INC./928.776.1169 ·

```
1
    involvement, indeed, you even had no knowledge that it
 2
    was going on?
 3
       Α.
           That's correct.
 4
                MR. HAMMOND: Your Honor, same objection.
 5
    Confrontation, Crawford Melendez-Diaz, it's hearsay and
 6
    inappropriate under that body of casework.
 7
                             Mr. Paupore, do you have a legal
                THE COURT:
8
    response?
9
                MR. PAUPORE: I would like to ask the
10
    witness one more question.
11
                THE COURT:
                             Okay.
12
       Q.
           (Continued by MR. PAUPORE:) Did you rely on the
13
    report that we're talking about in any way for your
14
    examination that was done after that report was made?
15
                               Asked and answered.
                MR. HAMMOND:
16
                THE COURT: Overruled.
17
                               The only information that I
                THE WITNESS:
18
    discerned from the previous, from the two reports in
19
    October were to see that we'd already tested item seven
20
    and 8 previously and that was why the extract was
21
    consumed, and to view the results of the extract that we
22
    previously tested from Arizona for the washer hose to
23
    try to explain why we didn't test it again.
24
       0.
           (Continued by MR. PAUPORE:) We discussed that
```

yesterday in item Exhibit Number 3226?

-LOTT REPORTING, INC./928.776.1169 ·

- 1 Α. Correct. 2 So you went back and looked at the October, at 3 the earlier reports to see what was done? 4 Α. Right. Those two previous reports. 5 MR. HAMMOND: Your Honor, excuse me. 6 have her answer the question without revealing the 7 contents of the document? 8 THE COURT: Yes. 9 Q. (Continued by MR. PAUPORE:) Do you remember the 10 question? 11 Could you repeat the question? 12 Q. Did you go back and look at the earlier October 13 reports when you were preparing your conclusions for the 14 April 27th report that is in evidence? 15 Α. Yes, I did. 16 MR. PAUPORE: Your Honor, I believe this 17 satisfies the business exception to the hearsay 18 objections, that and other objections legally that Mr. 19 Hammond has made. 20 THE COURT: Let me have a sidebar. 21 (Whereupon, a sidebar conference is held off the 22 record.) 23 THE COURT: Thank you, ladies and gentlemen. 24 Q. (Continued by MR. PAUPORE:) Alexis, I'm going to
 - -LOTT REPORTING, INC./928.776.1169 -

have you take a look at what has been marked as Exhibit

3236 and ask if you can identify it.

- A. This was the, this is the report that was generated for the fiber, which was reported to us to be a hair.
- Q. Well, before you say anything from that document, did you look at that report and rely on that report in preparing your April 14th and amended April 27th report?
- A. Yes, I did. I took this exact same wording and added it to my report.
 - Q. So, in fact, it is already included in your April reports?
- 12 A. Yes, it is.

1

2

3

4

5

6

7

10

11

- MR. PAUPORE: State would offer Exhibit 3236.
- MR. HAMMOND: No objection.
- THE COURT: 3236 is admitted.
- Q. (Continued by MR. PAUPORE:) I'm going to show
 you, Alexis, Exhibit 3224, this document, and ask if you
 can identify that document.
- A. Yes. This is a report that I prepared. The date is April 13th, 2010.
- 22 Q. And is that your signature on the back of it?
- 23 | A. It is.
- Q. And that was your report, written report and results from your analysis that are contained in there?

-LOTT REPORTING, INC./928.776.1169 •

```
1
       Α.
            Yes.
                  That's correct.
 2
                 MR. PAUPORE: State would offer that report
 3
    into evidence.
 4
                 MR. HAMMOND:
                               No objection.
 5
                 THE COURT: 3224 is admitted.
 6
                 MR. PAUPORE: Mr. King, if you would be so
 7
    kind.
 8
            (Continued by MR. PAUPORE:) First I'm going to
       Q.
 9
    have you look at, Alexis, 3236, and can you see that
10
    from where you are at?
11
       Α.
            Yes. I can see it.
12
       Q.
           That's a report dated March 11th, 2010?
13
       Α.
            Yes.
14
       Q.
           That was actually done by whom?
15
           That was completed by Stephanie Masters.
       Α.
16
       Q.
           And Stephanie Masters works at Sorenson's
17
    Forensic?
18
       Α.
           Yes, she does.
19
       0.
           Is she one of the individuals that you supervise?
20
       Α.
           Yes.
21
           And the exact wording of this, of Stephanie
       Q.
22
    Masters' analysis is incorporated into your April 14th
23
    and April 27th, 2010, reports?
24
       Α.
                  That's correct.
           Yes.
```

And what can you tell us from this document as to

LOTT REPORTING, INC./928.776.1169 ·

25

Q.

1 | what was done and what was concluded?

- A. It's the same conclusion that we spoke of yesterday regarding this item. This was an item that was reported to us to supposedly contain a hair. When Stephanie opened the item, all she found was a fiber.
- So, the conclusion is no apparent material of biological significance, no testing was performed on this item.
 - Q. That was the end of that analysis?
- 9 A. Yes.

2

3

4

5

- Q. Did Yavapai County Sheriff's Office submit to you a number of buccal swabs for testing?
- 12 A. Yes, they did.
- Q. Did you actually do the analysis of the results from the testing?
- 15 A. Yes, I did.
- Q. And we talked about Exhibit 3224 and this is dated April 13th, 2010?
- 18 A. Yes.
- 19 Q. And, again, is that your signature on the bottom 20 of the page?
- 21 A. Yes. Yes, it is.
- 22 Q. And can you tell us what this all means?
- A. This is just a list of the evidence that we've received. It's got our Sorenson item number, it has got the agency ID number, and the third column there is a

description of the item. One is the reference. We include the word reference and use the first initial of the individual's name and then their last name to identify who the reference sample came from.

- Q. Without mentioning the name, I'm just going to pick, say, number 25, Sorenson item number 25, can you see that?
- A. Yes.

1

2

3

4

5

6

7

8

14

15

16

17

- 9 Q. Go through the steps of what was done with item 10 25.
- 11 A. For DNA analysis or for the DNA test?
- Q. For both, for the -- how were you able to arrive at a conclusion?
 - A. It's the same process that we spoke about yesterday. We extract the item, quantitate it, amplify it, run it through the genetic analyzer, and then I interpret the data, compare the profile that's obtained from these reference items to the evidence items.
- 19 Q. These are, the reference, the samples were all 20 buccal swabs?
- A. As far as I'm aware. I would have to check the notes to be sure, but I believe they all were.
- Q. That's your understanding?
- A. That's my understanding.
- Q. So all the individuals on the right-hand column,

DNA was obtained and analyzed?

A. Yes.

1

2

3

6

7

- Q. And what was the, what was the DNA compared to?
- A. We were requested to compare this to the major

 5 DNA profile, to the fingernail clippings.
 - Q. Were you able to come to any conclusions after that comparison?
- A. Yes. None of these individuals matched that major Y-STR DNA profile.
- Q. Go to page two on there. Again, these are reference samples of, we talked about 25, is that pretty illustrative of all of the results that you obtained on the rest of these reference samples?
- A. Yes. The results were identical. For every reference sample they were all excluded.
- Q. Your results, conclusions, and opinions are stated on the bottom?
- 18 A. Yes.
- Q. And that's where it mentions you did the comparison to the DNA found under 603?
- 21 A. That's correct.
- Q. Was there any comparison made to the major found on the handset telephone?
- A. No. At the time that we received the request to test these reference samples, the request was to compare

-LOTT REPORTING, INC./928.776.1169

to the major on the fingernail clippings and we had not yet completed the testing on the handset telephone.

- Q. And after you completed the testing on the handset telephone, was there then a comparison done?
 - A. No. That was not requested of us.
 - Q. Not requested by the agency?
 - A. Not that I'm aware of.
- Q. Directing your attention back to the April 27, 2010, report, and the April 14th, report, the 27th report is exhibit number, again, for the record -- what did I do with it -- Exhibit 3226, directing your attention back to that area under the left fingernail where you transposed the names of Mr. Knapp and Mr. DeMocker?
- 15 A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

16

17

- Q. Is there a protocol that requires you, requires Sorenson Laboratory to do a, to do something when something like this occurs in one of your reports?
- A. Yes. We do have a protocol that addresses if a report needs to be amended due to an error, there has to be a corrective action.
- 22 0. And was that done in this case?
- 23 A. Yes, it was.
- Q. And can you explain how a corrective action report is made and generated?

- A. Certainly. We have a protocol that directs us how to perform a corrective action. We have a specific document that we have to fill out where we have to explain what happened, what we feel is the root cause after investigation, if need be, as to why that happened, as well as what our corrective action will be to make sure that doesn't happen again in the future.
 - Q. Was that done in this case?
 - A. Yes, it was.

- Q. Did you have any involvement in that corrective action report?
- A. My DNA technical leader completed that report, that form I should say, but he did ask me my versions of the event of what happened and why I felt that the error occurred, and I did provide that to him.
 - Q. And why do you think that you made that mistake?
- A. I believe I was rushed to write the report. I only had three days to generate it and review it. At the time that we received the request, although the DNA testing portion of it had been completed, the paperwork was not all complete and I can't complete the case file until the paperwork is complete. So, I had to wait almost a full day for that paperwork to be completed and I was not able to get the report completed and written up within one day, it took me a day and a half, which

only gave a half a day for the review. So, I believe it was just being rushed to get this report done when we were operating under the impression we were going to have an entire week to complete this report and to do the review, and then it got changed to three days at the last minute.

- Q. Has this ever happened to you before?
- A. No. It has not.

- Q. And on the reports that you normally have more time on, what would have happened if you had more time on this report?
- MR. HAMMOND: Objection. Calls for speculation.

THE COURT: Overruled. You may answer that.

THE WITNESS: It actually states in our corrective action that we can't guarantee if this error had occurred that it would have been caught. But, of course, the chances are much more likely that, first of all, it would not have been made, but also would have been caught had we had proper time to do the review.

- Q. (Continued by MR. PAUPORE:) After you author the report, and I'm talking now about your April 27, 2010, report, do you actually type up the data that's in that report yourself?
- A. Yes, I do.

Q. And then after you do that, after it's complete, completely typed up, what happens to it next?

- A. I print it out, put it in the case file, then I look through all the paperwork in the case file and do what's called a self-review, where I insure that all the documents in the case file are correct and complete. We have a checklist of all the different self-review duties that we have to complete.
- Q. And after that's, after you do your self-review, is there a next step in the process of this report?
- A. Once the self-review is complete, then it moves on to a technical reviewer who is another qualified DNA analyst who looks through the reports and the testings and makes sure that they agree with the results of the tester.
- Q. This technical reviewer is this person, does this person have the same credentials and same qualifications as you have?
- A. May not be identical to mine, but they do meet the FBI requirements to be a DNA analyst and they are trained at our laboratory.
 - Q. So it is a safety check by another analyst?
- A. Yes. It is to make sure that the results that the analyst has come to are within appropriate, are appropriate findings and comply with our requirements.

-LOTT REPORTING, INC./928.776.1169 -

- 1 Q. Do you analyze other analyst's findings?
- 2 A. Yes, I do.
 - Q. In that same process that we're talking about?
- 4 A. Yes.

- Q. Is that required of every single report at
- 6 | Sorenson?
- 7 A. Yes, it is.
- Q. After the technical review, is there something
 else that happens to your report?
- A. Yes. After the technical review, the case file then passes on to an administrative reviewer who is supposed to look for typos and misspellings and things of that nature.
- 14 Q. And was that done in this case?
- 15 A. Yes, it was.
- Q. So the switching of the names carried through the safety check phases of your organization, basically?
- 18 A. Yes, it did.
- 19 Q. So your technical reviewer missed your error?
- 20 A. Yes.
- Q. And your administrative reviewer missed the
- 22 | error?
- 23 A. Yes.
- Q. Was that covered in that corrective action that
- 25 you told about, each one of those stages?

LOTT REPORTING, INC./928.776.1169

- A. I don't know if they are specifically addressed separately, but it does state that both the report writing and the review phases were rushed and that was the root cause.
 - Q. So the root cause was determined to be rush?
- A. There was actually two root causes, one was the rush and the second we have a manual reporting method where I have to sit down and hand-type everything, there's no system to help us compile these reports, it's all hand-typed.
- Q. Let's talk a little bit -- well, I want to go back on something to make sure it's clear. We talked about CODIS yesterday?
 - A. Yes.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

- Q. And we talked about how Y-STR reports are not part of the CODIS databank?
- 17 A. Correct.
- 18 | Q. What about STRs?
- A. Yes. Those would be the profiles that are entered into CODIS.
- Q. And, again, you said at Sorenson because it is a private lab you do not have the ability to enter qualified STR profiles into the CODIS databank?
- A. That's correct.
- Q. Who must do that?

- A. That has to be done. Ordinarily, it's done by the state laboratory of where the testing was requested. So, for example, if the Yavapai County Sheriff's Office asks us to perform testing, we obtain an STR profile, they have to go to the Arizona Department of Public Safety and ask them to update the profile.
- Q. So, for the major unknown profile found on item 603, the fingernails, and the major profile found on that handset telephone, that data goes to the law enforcement agency that submitted the evidence?
- A. Yes. The results are ordinarily submitted to the agency that requested the testing.
- Q. And it's up to that agency to request that it be entered into the CODIS databank?
- A. That's correct. They can request it, but it's up to the Arizona Department of Public Safety if they will actually enter it.
 - Q. And that's a decision made by that agency?
- A. That's correct.

- Q. Do you know if the two unidentified major
 profiles that you talked about here were entered into
 CODIS?
- A. Those are Y-STR DNA profiles, so they are not CODIS eligible. From what I said before, as I understand, Y-STR profiles can be put into CODIS and

stored there, but they can't be searched again. So, I don't know if they opted to do that or not.

- Q. And, again, we discussed why it is difficult to try to find somebody in the Y-STR profile?
 - A. Right.

- Q. Be all males, cousins and male relatives --
- A. Correct.
- Q. -- would be involved? Let's talk a little bit next about touch DNA. Are you familiar with that term?
- 10 A. Yes, I am.
- Q. And have you read articles in your field that discuss this touch DNA issue?
- 13 A. Yes, I have.
 - Q. And I think you explained a little bit yesterday, but tell the jury how touch, how someone's DNA can end up on somebody else by touching.
 - A. When you come into contact with another individual, it's actually covered by Locard's Principle. We learn about it in, basically, all forensics field there will be a transfer of some kind of material between the two of you. In the case of DNA testing there can be a transfer of cells from one person to another. When you physically touch somebody you can have skin cells that slough off of your hands when you are speaking to them. It is kind of gross. But when we

speak to each other, we are kind of spitting on each other, I know it is kind of gross, but you are, you may take their cells from the inside of their mouth and end up with those on your face or your clothing or other body parts.

- Q. So, let's say that I go into a grocery store and I grab a cart, a grocery cart and I ignore that little wipe thing that's hanging there by the, I think I know what they are there for now, but that is hanging by the grocery carts. I just grab the cart and head off into that store. That handle of that grocery cart hadn't been wiped or sanitized in any way. Would you expect to find my DNA on that handle of that hand cart?
- A. It's hard to say if you can expect to find it.

 Different people, it's called being a shedder. Some people shed skin cells much more easier than others.

 Sometimes it depends on if you recently washed your hand or if you use lotion or if you sweat or if you have oily hands. There's all kind of factors that go into saying whether or not you could expect to find somebody's DNA profile, but you certainly could.
- Q. You said shedder, you said that yesterday, how is that spelled?
- A. I believe it is S-H-E-D-D-E-R.
- Q. People shed hair?

A. True.

- Q. Do they shed at the same rate as they do DNA cells? Do you know?
 - A. I don't know.
- Q. I was just wondering for my own personal standpoint. So, the shedder concept really depends on the personal habits and hygiene, hygiene of every individual person?
- A. That's a great factor, also, just your natural biology as well.
- Q. Let's say the same grocery cart was used by a mother that had four kids and she pushed it around for 45 minutes in the grocery store, hanging onto the hands of her children and she had one of her babies sitting like they put them in the golf, put them in the grocery cart, you know, the baby is hanging onto the handle, they didn't wash their hands that day and there was no lotion on their hands. I come along, grab that same cart and I'm the same way, I haven't washed my hands, I don't have any lotion on them and I walk around that grocery store for 45 minutes looking for things. If you were able to, what would you do then to try to find my DNA on that or even the mother's DNA for that matter on that same grocery cart handle?
 - A. The only thing we can do is to swab it and

-LOTT REPORTING, INC./928.776.1169

attempt to obtain a DNA profile. We can amplify a little more DNA than we typically could because we can expect that there is going to be more than one person's DNA on there. Our current DNA targets are based on one person's DNA, so we can amplify more to try to get both donors or however many donors to show up as much as possible.

- Q. Would it come to a surprise to you if you swabbed it and from your testing you found mixtures of DNA?
- A. On commonly touched items like grocery cart handles, door knobs, things of that nature, it is not at all a surprise to obtain a mixture. In fact, it happens more often than not.
- Q. And let's say that I'm in the same grocery store, same grocery cart that the mom used with the four kids before me, and I walk around holding on to the grocery cart and there's a security camera that captures me in the grocery store pushing this very cart. You run your swab on that handle and because I don't shed DNA like I shed my hair, you don't find my DNA on that handle.

 Does that, has something like that ever occurred in your experience?
- A. It's a possibility. I know of one case very similar to that I worked that was a burglary. They had the burglar on tape, opening up a cooler at the

- convenience store with his forearm and grabbing a case
 of beer. They swabbed the handle of that cooler and we
 got a mixture. Actually, they were able to exclude him
 from that mixture. So, his DNA did not show up, it
 wasn't detectable in the presence of all the other
 - Q. Was there a security camera that this individual robber was captured on?
 - A. That was the information we were given, yes.
- 10 Q. So you could actually see him opening up this 11 cooler?
- 12 A. That was the information we were given.

people that had turned the door handle.

- Q. And you couldn't find his DNA?
- A. That's correct. We were actually able to exclude him.
- 16 O. Exclude him?
- 17 A. Yes.

6

7

8

9

- Q. So there must have been enough information in the mixture that you could do that?
- 20 A. Yes.
- Q. And you actually had the suspect's DNA to compare
- 22 | it with?
- 23 A. Yes, we did.
- Q. Next I want to discuss a little bit about
 mixtures of DNA profiles and fingernail samples that are

LOTT REPORTING, INC./928.776.1169 ·

taken from couples who cohabitate. Are you familiar with, in doing and keeping up with your reading on the advances in your field of any test or any test being done on that kind of a situation, DNA profiles from fingernail samples taken from couples who cohabitate?

A. There was an article that --

MR. HAMMOND: Objection. Your Honor, may we have the witness answer the question that Mr. Paupore asked with yes or no, which was the question are you aware.

THE COURT: It was a yes or no question, initially, and you may answer that question.

THE WITNESS: Yes, I'm aware.

- Q. (Continued by MR. PAUPORE:) And do you know the name of where this study was conducted?
- A. The study was conducted in the United Kingdom by the Forensic Science Service.
 - Q. By the who?
- 19 A. Forensic Science Service.
- 20 Q. Are you familiar with that service?
- 21 A. Yes, I am.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

- 22 | 0. What is that service?
- A. In England they have a private entity that does all the DNA testing for their entire country and they call it the Forensic Science Service. So, it would be

1 like the FBI if the FBI were a private company.

- Q. And what was the study, how did the study work?
- A. This was a study of 12 people that lived together, male and female, and the study --

MR. HAMMOND: Your Honor, could I interrupt and ask for some foundation and ask a couple voir dire questions? She's actually testifying about a study that is not in evidence, that hasn't been identified as anything other than having been done, as she says, in the United Kingdom.

THE COURT: If you want to ask some voir
dire questions, you may.

VOIR DIRE EXAMINATION

14 BY MR. HAMMOND:

2

3

4

5

6

7

8

9

10

13

15

19

- Q. Where was the study done?
- 16 A. It was done in the United Kingdom.
- Q. Really? Where in the United Kingdom? The United Kingdom is a huge place.
 - A. I don't know the exact location.
- Q. Was it done in Glasgow, Scotland?
- 21 A. As I said, I don't know the exact location.
- 22 Q. When was it done?
- 23 A. December 2009.
- Q. In what journal was it reported?
- 25 A. I believe it was the Forensic Science

So please

1 International. I would have to look to be sure. 2 the article with me. I could look to be sure. 3 Your Honor, the article itself MR. HAMMOND: 4 would be the best evidence. Having her testify about an 5 article that she's read, I think, is not proper, it's 6 hearsay. 7 THE COURT: You are making an objection? 8 MR. HAMMOND: That is the objection. 9 THE COURT: What is the specific rule that 10 you would cite? 11 MR. HAMMOND: Foundation and it is hearsay. 12 I can ask her additional questions about her expertise 13 in this field, but I think she would tell us that she is 14 not an expert in the collection and transfer of DNA 15 under fingernails. 16 Counsel, there are a couple of THE COURT: 17 legal matters I want to take up. I would like to go 18 ahead and take the morning recess at this time, if we 19 could do that, Mr. Paupore? 20 MR. PAUPORE: Yes, Your Honor. 21 We'll do that. THE COURT: Ladies and 22 gentlemen, remember the admonition and follow it in this 23 respect, Ms. Brown you will be excused for a recess as 24 well and remember the exclusion of witnesses have been

-LOTT REPORTING, INC./928.776.1169

invoked. Please be ready to return at 10:45.

reassemble at that time. I ask the parties to please remain. Thank you.

(Whereupon, the jury is excused.)

THE COURT: On the record with the defendant and the attorneys present, the jury is not present. We are going to take up a related issue. There was an objection to hearsay, Mr. Hammond, and I was going to ask you if you have the exact rule of evidence that you were invoking.

MR. HAMMOND: Are you talking about the fingernail issue?

THE COURT: I should have said the latter. I believe we have two issues to address, the latter of the two.

MR. HAMMOND: My objection, as I stated it, was, first of all, she has not been established that she's an expert in this field. If she were an expert on this particular issue, this is an important question, on the transfer of DNA under fingernails, which obviously we've seen analysis in other fields, it is a pretty important topic. If we ask, she will say she's not, she's never done a study herself, she's never done any kind of systematic review in the field.

So, she's not an expert and she can't testify based upon having just read one article in a

field. She is not an expert. That is 702. The article itself, if she is not an expert, is hearsay. You can't have a witness get on the stand and say I read an article and let me summarize it for you. That is just hearsay. That's the basis of my objection.

THE COURT: And that will be a basis to sustain, but I haven't heard from Mr. Paupore on the response and I'll give you the opportunity.

MR. PAUPORE: Thank you. Under 703 the basis of opinion testimony by experts, experts can reasonably rely upon opinions by other experts in a particular field in forming opinions or inferences upon the subject. The facts or data need not be admissible in evidence in order for the opinion or inference to be admitted. Facts or data that are otherwise inadmissible should not be disclosed to the jury by the proponent, but, nevertheless, the expert can reasonably rely upon published articles in her field, and this is a published article in her field that she reads.

She indicated yesterday under her qualifications that she reviews published articles in her field on a regular basis and she had reviewed this particular study. She does not have to be an expert on the transfer of the phenomenon of DNA, but she can certainly look at it and draw inferences from it and it

does qualify under Rule 703 as a published scientific article that this expert has read and has knowledge about. I'm not going to be admitting the report itself, because I agree with Mr. Hammond that it would be hearsay.

MR. HAMMOND: Your Honor, this witness did not rely on this article in any way to draw any conclusion she has yet made in this case. I know from the interview that we've had with her, and if we want to put her on the stand I know she would say, and Mr. Paupore would agree that she has no experience in DNA collection. She has not been involved in that phase of DNA related work and she certainly has never done any work in the field of transfer of DNA from the fingernails of human beings. She was unaware of the article at the time of her interview.

We brought this article to the attention of the prosecution. They, apparently, gave it to her sometime after her interview and now would like to have her rely on it. There may be experts who can do that because they're experts in the field, but she is just not one of them. So, as to her, this is entirely hearsay. She's just the wrong witness.

MR. PAUPORE: Your Honor, the witness testified that she is involved in all aspects of the DNA

analysis, including serology and the extraction amplification and quantification in all stages, she's worked in all of those areas. She can certainly use a published article in her field to base an opinion upon, according to Rule 703, that's why it is in there, that's what she, she doesn't, she has cases that she's talked about, cases where there are mixtures. On the golf cart, the golf cart, I mean the grocery cart example, we were talking about transfers of DNA on items that were touched by two people in the hypothetical.

THE COURT: She's testified as an expert from DNA analysis and made comparisons of being in dispute and her qualifications there. She has testified about transfer with hypotheticals from Mr. Paupore, as indicated, and about her knowledge in that regard.

MR. HAMMOND: Your Honor, there's a huge difference -- if this is what is on your mind, there's a huge difference between the basics of DNA transfer, touch DNA, and that's why I allowed those questions to go on. I would say that people in the field do have a basic understanding of basic touch DNA, but when you get into the specialized fields of DNA collection, the deposit and collection of DNA under fingernails or in vaginas or on pubic hairs, those are, everyone recognizes in this field very specialized things that

people do study and there may be even somebody at Sorenson who has studied this, but she has not.

THE COURT: There is a number that is shown here that I can make a ruling as far as way things stand here. Dr. Keen was committed to testify just very generally about what might happen, but this is rather specialized, at least that is what I am being told, and I haven't had that refuted. So, it comes down to foundation at this time as to whether or not she can provide proper foundation for being able to testify with regard to transfer involving fingernail clippings, if she has that type of qualification and what's the basis. So, if she can provide that foundation then I would consider that.

The other thing we're getting into, Article 803.18 is specific about what you can do with that in my view and what can be read and what can't, and then there's the other rule that the attorneys have been citing about what can be relied on. When that's the case, that just doesn't automatically come into evidence either, when it's a situation of when an expert witness is relying on information, that experts in that field reasonably rely on. There hasn't been any foundation with regard to that either. Where it stands right now the objections are sustained. There's another issue

```
1
    with regard to one report and that is the offered
 2
    Exhibit 3233, I think.
 3
                MR. BUTNER:
                              Excuse me.
 4
                THE COURT: Mr. Butner?
 5
                MR. BUTNER:
                              I was speaking with Mr.
 6
    Paupore.
 7
                THE COURT:
                             We had a brief sidebar.
                                                      Ι
 8
    didn't want to go into that extensively. I want it on
 9
    the record.
                 3233 is an underlying report. Mr. Paupore
10
    did offer the items that are listed as necessary to
11
    receive into evidence a record of regularly conducted
12
    activity, the areas were generally covered, but I'll ask
13
    Mr. Hammond, do you dispute that Mr. Butner covered
14
    what's required in 803.6, recognizing that does not in
15
    any way end the consideration of this piece of evidence?
16
    Do you acknowledge that?
17
                MR. HAMMOND: Yes. That's the root of the
18
    problem.
              I mean, that's what --
19
                THE COURT: Okay. I just want to make sure
20
    you didn't have a technical objection to the foundation
21
    under 803.6.
22
                MR. HAMMOND: I think it is hearsay,
23
    frankly, and I don't think she, I think she testified
24
    that she didn't rely on it in doing her reports.
25
    fact, she was entirely unaware of that work.
```

frankly, Judge, I don't think it matters.

THE COURT: For, yeah, going back and forth between 703 and reading it and it coming in in that fashion.

MR. HAMMOND: If you are just asking the basic question is it a business record, I don't dispute that it is a business record. That may have been your question.

THE COURT: Yes. I just wanted to see if I can't move on from whether or not there was some technical objection.

MR. HAMMOND: Sure. That is where the Supreme Court started with Crawford and Melendez-Diaz.

THE COURT: The Crawford issue talks about testimonial statements and then you have to make that kind of analysis, are these reports, are they statements, are they containing statements, do they contain assertions? If you look at definitions on the hearsay statement, what a hearsay statement is, probably so, are they prepared for litigation, there's that analysis that goes into it, apparently. It seems to me that gets you into Crawford considerations, but I haven't, we didn't explore this because I wanted it on the record, I didn't want to repeat it, the jury has had enough time while they're waiting, while we're waiting

for legal matters and I know these are important matters. That is why I brought it up. I didn't bring it up. Mr. Hammond made an objection that included the Crawford issue. It seems to me if you talk about testimonial statements and concerns with confrontation, it is a concern. Mr. Paupore?

MR. PAUPORE: Your Honor, I'm not going to tell the court that these are not statements and conclusions and I was trying to get the reports admitted under the business records exception. The witness has established foundation thus far, but can Mr. Hammond cross examine the author of these reports if they're put into evidence and the answer is no, he cannot.

THE COURT: And are you still wanting to offer them over that observation?

MR. PAUPORE: No. Your Honor, I think I concede with that statement.

THE COURT: Then --

MR. PAUPORE: I would like to visit back on that touch DNA, I believe this witness is imminently qualified to talk about touch DNA. That is what she does. She was a serologist. She said she was a serologist with Louisiana Police Department. She does serology. She supervised people that do serology. It involves touch DNA, it involves biological DNA. That's

her field. The fact that she can examine door knobs, smooth surfaces, golf --

MR. BUTNER: Grocery carts.

MR. PAUPORE: I probably want to be golfing today.

THE COURT: Mr. Paupore, if you can provide that kind of foundation you can attempt to do that. I'm not making any kind of judgment on that at all. At this point, from what I've heard, I've sustained the objection on foundation. If she has the specialized knowledge to talk about transfers and fingernail clippings and she has familiarity, I don't want to go any further. The rules are there for people to read.

Mr. Hammond?

MR. HAMMOND: Your Honor, I think we can establish pretty quickly with her that if you ask the questions about whether you can transfer DNA or whether it's meaningful or likely that DNA would be transferred by clippers or transferred by incidental communication, she knows nothing about that. The state would like to have her testify, sure, all of these things can happen. You could have gotten DNA under your fingernail because of clippers or because of some other contact, but she has never studied in that field. I don't even think she's ever done a case that involved the transfer of DNA

under fingernails, and, if she has, it may have been one case and it would have been in the last few months, but she certainly has not been offered as an expert in this field, in this very specific and important field.

I would rather not have to do this in front of the jury. If Mr. Paupore wants to bring her back in right now and ask her questions out of the presence of the jury or I'll ask her out of the presence, fine, but I don't think this is a closed question. I think she'll acknowledge that she has no expertise that field.

THE COURT: That would close the issue right there if she says, no, I really can't talk about this very specialized aspect of transfer, that what Mr.

Hammond is saying is a very specialized aspect of DNA transfer, that would close the matter right there, I think. Mr. Paupore can ask the question.

MR. PAUPORE: Mr. Hammond and I agree we are 180 degrees apart on this. If the DNA wasn't transferred under left fingernail, it wasn't transferred, it had to be transferred. It had to be transferred on the phone. The phone was touched, it had to be transferred, how else is it going to get there. It is that basic. I don't believe it is a specialized field at all.

THE COURT: In the interview did they make

```
1
    any statements about this kind of transfer?
 2
                MR. HAMMOND:
                               No.
                                    She had no opinions about
 3
    how the DNA got under this fingernail. We spent two
 4
    days with her.
 5
                MR. PAUPORE:
                               I'm not going to ask her how
 6
    she has an opinion on how it got under there, that was
 7
    not where I was going with the examination.
 8
                             Then I don't see the basis to
                THE COURT:
 9
    get into what underlies a non-opinion. There has to be
10
    an opinion and then there's a question of what has to be
11
    revealed or what might be admitted as the basis for the
12
    opinion, if we're talking about 703. If you're under
13
    803.18 you have a whole range of other considerations,
14
    that is why you --
15
                MR. PAUPORE: She can give an opinion that
16
    the DNA was transferred?
17
                THE COURT: It was.
                                      That has to.
18
    Hammond just pointed that out.
19
                MR. PAUPORE: And the study that she was
20
    talking about is about transfer of DNA from touch.
21
                THE COURT:
                            Without the presence of the jury
22
    and the witness here, what does the study conclude, Mr.
23
    Hammond?
              You said you brought this up.
24
                MR. HAMMOND:
                              The study is a terrific study,
25
    it is not conclusive. It was a study done in Scotland
```

where they took some couples and have those couples have undisclosed but intimate contact with each other for a period of time. They had other people who did not have intimate contact and then they clipped the nails of both groups after some period of time and they did DNA testing on, there may have actually been more than two groups, but they did group testing to see if they could tell whether or not you would get a significant quantity of DNA under your fingernails from idle touch communication, the kind of thing that might happen if you were just in the same grocery store or same office.

They compared those with the people who had had intimate contact and then found that people who had intimate contact are much, much more likely to have significant quantities of DNA under their fingernails, but it's a very important area and very important law enforcement. I don't want to tell them how to do their job, but they should not be messing around with this. It is very important stuff.

THE COURT: It appears that you were mentioning this article at some point. I don't know. I won't ask anything further, but is it required as disclosure?

MR. HAMMOND: Yes. We have a person who has expertise in this field.

THE COURT: I'm just puzzled as to why you would be concerned about this favorable study being mentioned at this time.

1.2

MR. HAMMOND: I don't think she understands it. This is a person, I don't know what she would say about it, Your Honor, but I doubt that she has really understood that study. She couldn't even recall where it was done other than the United Kingdom.

THE COURT: That's the basis of sustaining it right now. Mr. Butner?

MR. BUTNER: Your Honor, I didn't mean to speak over you. I'm trying to communicate with Mr. Paupore.

THE COURT: The reporter has a hard enough job as we know. Turn to 703. She hasn't expressed an opinion in this specialized area. With regard to the study itself, she didn't even know where it came from, let alone be able to testify that is the type of article she would rely on in her field of expertise. I'm sustaining the objection. If there really are, if there really is foundation for her in this area, Mr. Paupore would be entitled to explore that and I'll go from there. Thank you. We're in recess.

(Whereupon, a recess is had from 10:42 a.m. to 10:59 a.m.)

THE COURT: Let the record show the presence of the defendant, the attorneys, and the jury, and Ms.

Brown has returned to the witness stand. Mr. Paupore?

MR. PAUPORE: Thank you, Your Honor.

- Q. (Continued by MR. PAUPORE:) Alexis, I want to take you back to your testimony yesterday, including your earlier training in serology.
 - A. All right.

- Q. After you graduated you went and worked for the Louisiana Police Department?
- A. New Orleans Police Department.
- Q. New Orleans Police Department. What did you do for New Orleans Police Department?
- A. Mostly I was in training when I was there. That was the majority of the time. Couple months after I got out of training I began working on some blood stain cases.
- Q. What kind of training did you receive?
- A. We practiced with lots of different practice samples and mock cases, essentially performing the tests over and over again on various sample types.
- Q. What kind of testing?
- 23 A. DNA testing.
- Q. What about the, did you do any serology?
 - A. Not at New Orleans Police Department. They had

two separate testings, the DNA testing unit and serology
unit.

- Q. What did you work next?
- A. ReliaGene Technologies.
 - Q. Tell us what you did at ReliaGene Technologies.
- A. At ReliaGene I was given, again, several different testing samples to test for blood and semen.
 - Q. How long did you work there?
 - A. I worked there for approximately three years.
- 10 Q. So did you do serology exclusively at ReliaGene?
- 11 A. No.

3

4

5

6

7

8

9

13

14

15

16

17

18

20

21

- 12 Q. How long were you in the serology area?
 - A. They didn't have separate areas. The way it would work is you might work in serology for a week or two or you might do serology and then take the cases forward to DNA testing. They sort of switched back and forth on how they processed cases while I worked there.
 - Q. They moved you as needed?
- 19 A. As needed, yes.
 - Q. In serology, what to do you in serology when you are doing serology?
- A. Serology is testing for body fluid. During that
 step we're responsible for collecting, it is the DNA for
 DNA tests. Sometimes that involves simply taking a swab
 and cutting it, it has been swabbed, a swab from the

- agency has produced it or we are sent the whole entire item and we swab the item ourselves to get DNA.
 - Q. The item can be a piece of clothing or something along that line?
 - A. Sure.

4

- 6 Q. Even a weapon?
- 7 A. Sure. Absolutely. Guns. Knives. I've gotten 8 those before.
- 9 Q. So the serology is first to identify if you have 10 potential sources of DNA?
- 11 A. Yes.
- Q. Then if you do have, you do believe it could be DNA on an item, you collect that?
- 14 A. That's correct.
- Q. And the collection is by swabbing?
- 16 A. Yes. Ordinarily.
- Q. And then it runs through the tests that you determined before?
- 19 A. That's correct.
- Q. Now, if you got, for example, an object like a weapon or a knife or a gun, how do you get the DNA off of that?
- A. We have to postulate where the, first of all, we need to know the case scenario and what's occurred, what we're looking for. For example, on a gun are we looking

who fired the gun or are we looking for blue vac, where we may have the victim's gun, inside the barrel of the gun, and what is actually being sought after. We read the case scenario to figure that out. We have to postulate that. Do they want to know who handled the gun, where would the gun be handled by someone who fired it, where should we swab, where would the cells be to get that information.

- Q. Why would you want to know who handled it?
- A. Again, depends on the case synopsis. I was coming up with an example.
- Q. If you are looking for information about someone who handled the weapon, say like a gun, what would you do to look for that person's DNA on someone who might have handled that weapon?
- A. Well, we could swab the grip of the gun, we could swab the trigger of the gun, we could swab the magazine that holds the bullets, we could swab the bullets themselves if there are bullets present.
- Q. You talked earlier about the shedding of cells?
- A. Yes.
- Q. And shedding can occur from a person's hand?
- 23 A. Yes.

Q. And a person holding the gun could hold DNA cells somewhere on that gun?

- 1 A. That's the thinking, yes.
- Q. That's the thinking. Is there a term for that?
 - A. A term for the shedding of cells?
 - Q. No. The handling, no. How does the DNA get from the person's hand to the gun?
 - A. That would be transfer of skin cells.
 - $\ensuremath{\mathbb{Q}}.$ Is that something that you deal with all the time.
 - A. Yes. We do have to postulate where the cells would be in order to properly collect the DNA.
- 11 Q. That is why you look at the handle?
- 12 A. Correct.

4

5

6

7

8

9

10

- 13 Q. That is why you look at the trigger?
- 14 A. Correct.
- 15 Q. Anyplace where someone might grip a weapon?
- 16 A. Anywhere they might touch it.
- Q. Anywhere where they might touch it. And have you
- 18 been able to isolate, extract and isolate DNA from
- 19 someone who has handled an object like a weapon?
- 20 A. Yes.
- 21 Q. And have you been able to develop profiles from
- 22 | that?
- 23 A. Yes.
- Q. And so, the handling and touching and
- 25 transferring of DNA is something that you do all the

time; is it not?

- A. Yes, it is.
- Q. And do you keep up and read articles in your field that discuss what we're talking about?
- A. We do because it's important for us to know the best collection techniques as well as the best areas to swab particular types of items that we see like guns and knives.
- Q. And the swabbing of an item is actually the collection in the hopes of finding DNA?
- A. Yes.
- Q. So we're talking about collecting DNA, you're collecting it off some object that has been submitted or some fluid that has been submitted by an agency?
- 15 A. Yes.
 - Q. And do you have any knowledge on how DNA may transfer from one person to another?
 - A. The shedding of skin cells as far as touch DNA goes is the most common.
 - Q. And how common is it?
 - A. Well, like I said, I did learn in school about the Locard's Exchange Principle. That's when two people come into contact with each other and there will be a transfer of some evidence, something, not necessarily skin cells, but something. But as far as how common the

transfer is, I tried to read articles and studies to try to answer that question all the time. That's a question we get asked quite a bit and it's not easy to answer because there are so many factors that can be different, people's interactions, the only thing we can do in our field is to read studies and do studies and keep abreast of what studies are out there.

- Q. And that's something that you try to keep up on?
- A. Yes.

- 10 Q. You say you get asked all the time about what?
 - A. About how likely it is that we're going to find DNA on an item that someone has touched if someone touches the door handle, how likely is it that you will get a DNA profile.
 - Q. It depends likely on what we talked about yesterday, the type of object has something do with it?
 - A. Right.
- Q. And other factors would be when that person last washed his or her hands?
- 20 A. There's lots of factors.
- Q. But that is something that you deal with all the time?
 - A. Again, it's a question that gets asked us quite a bit and so I do try to read the studies that have been done and see if I can answer them. Oftentimes I say I

can't answer that, there's no way to tell for sure.

- Q. I want to jump back to my grocery cart example we talked about. Would it in that scenario that I gave you, would it be possible for the mother's or one of her kids DNA to be found on my hands?
 - A. It's possible.
 - Q. And how could that happen?
- A. Again, if the cells are transferred onto the grocery cart handle and you push the grocery cart handle, it is possible you pick them up on your hand.
- Q. Is that something that you have looked at or examined before?
- A. I can't think of any particular cases right off the bat. I can't recall any.
- Q. Okay. We did talk earlier about a study that you had referred to in the United Kingdom?
- A. Yes.

- Q. When did you become aware of that study?
 - A. I became aware of that study, I had asked my laboratory director to try to find any studies on fingernails that he could find in the Journal of Forensic Science, which is a popular journal in our field, and he wasn't able to find much. When I came here I learned that you all had collected some articles and I asked if I could read them to see if there were

any that would be probative for that, would give me any information for this case, in particular.

- Q. And did you recognize the source of that article?
- A. Yes, I did. I'm very familiar with that publication.
- Q. Very familiar with the publication. You weren't familiar when Mr. Hammond asked you what part of England that the study was conducted?
- A. No. I didn't recall that from reading the article.
- 11 Q. And how was that study helpful to you with this 12 case?

MR. HAMMOND: Your Honor, objection. If the witness is going to be asked anything about opinions she might have in this case, I object to lack of foundation, Melendez-Diaz, Rule 15 Disclosure.

THE COURT: Sustained.

- Q. (Continued by MR. PAUPORE:) When you are talking about touch DNA, what do you mean by that exactly?
- MR. HAMMOND: Your Honor, same objection.

If the witness is being asked about or if counsel is

- 22 intending to lead to any questions having to do with
- 23 touch DNA, as it might apply to this case, Rule 15
- 24 Disclosure.

1

2

3

4

5

6

7

8

9

10

13

14

15

16

17

18

19

21

25 THE COURT: I'm going to overrule as to that

specific question. You may answer that if you can.

THE WITNESS: When we use the term touch DNA, we're referring to, ordinarily it refers to DNA that we've obtained from an item that has been swabbed, but there is no indication of any body fluid being present; thereby, the presumption would be that any DNA we obtained from the item would be from someone touching it or skin cells contact with an individual's skin.

- Q. (Continued by MR. PAUPORE:) An item that doesn't appear to the human eye to have any fluid or biological material, is that different than an item that would be, would have touch DNA?
- A. I'm trying to think if there would be a scenario where that would be true. I can't think of any, if you get DNA off of an item it has to come from some source. As I said before, body fluid contains cells that contains the DNA. But body fluid is in a higher volume, much higher volume than what we call touch DNA items without a body fluid. My presumption would be it has to come from skin cells.
- Q. Have to come from somebody else, somebody that has the DNA?
- A. Right. It has to come from some source and it has to come from cells from a human body; so, therefore, there is no body fluid present, my assumption is it

would come from skin cells.

1

2

3

4

5

6

7

8

9

10

11

12

1.3

14

15

17

18

19

20

22

23

25

- And one step further, would it come from someone who touched that object?
 - Α. Right. How else would the skin cells get there?
- Do you have any opinion at all how Carol Kennedy got the DNA on her hand?

Objection. Form of the MR. HAMMOND: question. If she can answer it yes or no I will withdraw the objection.

THE COURT: That is all it is at this time, a yes or no type of question.

> THE WITNESS: No. I have no opinion.

- 0. (Continued by MR. PAUPORE:) I ask the same question about, do you have any opinion about how the DNA might have gotten under her fingernail?
- 16 Α. No, I don't.
 - Do you have any opinion how the DNA would have, how the DNA got on the handset that we talked about, handset telephone?
- MR. HAMMOND: Again, try a yes or no answer. 21 Objection.
 - THE COURT: You may answer that as a yes or no, if you can.

24 THE WITNESS: Yes.

> Q. (Continued by MR. PAUPORE:) You have an opinion?

1 Α. Yes. 2 0. What is that opinion? 3 MR. HAMMOND: Your Honor, objection. Rule 15 Disclosure. 4 May I ask an additional question on the 5 voir dire? 6 THE COURT: You may voir dire. 7 VOIR DIRE EXAMINATION 8 BY MR. HAMMOND: 9 0. Ms. Brown, you and I spent two days together; 10 right? 11 Α. I remember. 12 I thought you might. On the second day I asked 13 you a series of questions about opinions that you might 14 or might not have in this case. Do you recall that? 15 Α. Not specifically, no. 16 Do you recall specifically that I asked you 17 whether you had any opinions about touch DNA as it might 18 apply to this case? 19 Α. No. I don't recall. 20 Do you have any recollection of saying that you 21 had no such opinions? 22 Α. No, I don't. I don't recall the conversation at 23 all.

LOTT REPORTING, INC./928.776.1169

day and we'll talk later about the -- I will be happy to

This is page 44 of the second

MR. HAMMOND:

24

```
1
    have Mr. Paupore read along with me. It might help him?
 2
                 THE COURT:
                             I'm asking counsel to examine
 3
    that transcript before there's any further questions
 4
    from counsel.
 5
                               This is the transcript of the
                MR. HAMMOND:
 6
    27th of April.
 7
                MR. PAUPORE: Your Honor, I will withdraw
 8
    that question.
 9
                THE COURT:
                             It's withdrawn.
10
            (Continued by MR. PAUPORE:) Based upon your
11
    answers given in that interview, Alexis, could Carol
12
    Kennedy have gotten DNA on her hand from pushing a
13
    grocery cart?
14
                MR. HAMMOND: Objection. Your Honor, same
15
    objection.
                This witness has offered no opinions with
16
    respect to anything having to do with touch DNA in this
17
    case.
18
                THE COURT: It's absolutely a hypothetical
19
    relating in the most general sense. Mr. Hammond?
20
                MR. HAMMOND: It may be a very general
21
    question, but if she's offering any opinion on this
22
    topic it is not an opinion that she has expressed
23
    before.
             She was asked specifically about whether she
24
    had any such opinions and she said she did not.
25
                THE COURT: Mr. Paupore?
```

```
1
                 MR. PAUPORE:
                               She wasn't asked this question
 2
    to my recollection, she already answered the question on
 3
    my hypothetical.
 4
                 THE COURT: So sustained. Objection is
 5
    sustained.
 6
                 MR. PAUPORE: And sustained on?
 7
                 THE COURT: It's sustained.
 8
                 MR. PAUPORE: I have no further questions of
 9
    Ms. Brown.
                Thank you, Your Honor.
10
                 THE COURT: Thank you. Cross-examination?
11
                         CROSS-EXAMINATION
12
    BY MR. HAMMOND:
13
           Ms. Brown, give me just a moment to get my
14
    materials together. Good morning again.
15
       Α.
           Good morning.
16
       Q.
           Ms. Brown, I ask you --
17
                MR. PAUPORE: Mr. Hammond, if you would
18
    excuse me for a moment.
19
                MR. HAMMOND: Want me to move?
20
                MR. PAUPORE: Yes.
21
                MR. HAMMOND: Forgive me.
22
           (Continued by MR. HAMMOND:) As I said in our
23
    little exchange a few minutes ago, you and I have met
24
    before?
25
       A. Yes.
```

```
Q. We've met in your home, Salt Lake City?
```

A. Yes.

2

- Q. At your laboratory?
- 4 A. Yes.
- Q. It was about four months ago, little more, couple days more?
- 7 A. It was in April.
 - Q. It was April 26th and 27th?
- 9 A. That sounds right.
- Q. We came to your office, my colleague Ann Chapman
- 11 and I came up for this interview with you and other
- 12 people; correct?
- 13 A. Yes.
- Q. And you were interviewed in a conference room
 that your company provided to us?
- 15 that your company provided to us?
- 16 A. Yes.
- 17 Q. The State of Arizona had representatives present
- 18 | as well?
- 19 A. Yes.
- Q. One of those was Mr. Paupore?
- 21 A. Uh-huh. Yes.
- Q. The other one was then Lieutenant Rhodes?
- 23 A. Yes.
- Q. As it turned out we interviewed you twice?
- 25 A. Yes.

- Q. We interviewed you on the first day and then we came back because of things that occurred and we interviewed some more the second day?
 - A. Yes.

2

3

4

5

6

7

8

9

17

18

19

21

22

23

- Q. In the meantime, we interviewed several other of your colleagues who worked there?
 - A. Yes.
 - Q. And those interviews were recorded?
- A. Yes.
- Q. Both sides had digital tape recorders as is the common practice in these interviews?
- 12 A. Yes.
- Q. And at the beginning of the interview we talked a little bit about the interview process, do you remember those conversations?
- 16 A. Yes. Uh-huh. Yes.
 - Q. One of the things we talked about was the fact that in an interview you really are not under oath. Do you remember me pointing that out to you?
- 20 A. Yes. I remember.
 - Q. And do you remember saying to me that you understood that you were not under oath but you intended to answer all of my questions and any questions that the state might ask just as if you were under oath?
- 25 A. That's -- I remember that, yes.

- Q. And I then suggested that there might come a day when you would be in a courtroom and that we would expect the answers you give at this time to be the same as the answers you gave then?
 - A. Yes. I recall that.
- Q. And you said you were comfortable with that and you understood it and wanted to proceed that way?
 - A. Yes.

- Q. We were there to talk to you because you had written two reports; right? You don't know why I was there. That's a silly question. You had written two reports?
- A. Yes, I had, at that time.
- Q. Okay. And you've talked about those reports a fair amount yesterday and today, and we're going to talk about, come back and talk about them some more.
 - A. Okay.
- Q. Let's spend a couple more minutes about what you said about your personal background so that we have that clearly in mind. You've actually been in the DNA testing field for more or less six years?
- A. Yes.
- Q. You have your degree in cell and molecular biology from Tulane?
- 25 A. Yes.

- Q. You've done no graduate work, you have no graduate degrees?
 - A. That's correct.
 - Q. And you talked about a couple other jobs you had with New Orleans Police Department and with another company in the South Central United States?
 - A. Yes.

4

5

6

7

8

9

10

- Q. And then you came out to Salt Lake City and took a job with Sorenson?
- A. Yes.
- 11 Q. And you've been with Sorenson now for about two 12 years?
- 13 A. That's correct.
- Q. This is actually your first time testifying in a court of law since you came to Sorenson?
- A. Since I came to Sorenson, yes.
- Q. And this is also your first Arizona involvement?
- 18 A. Yes, it is.
- Q. Which is why you made that nice comment about Prescott yesterday?
- A. Well, I've been to historic downtowns before and they have never looked as nice as this one. It did impress me.
- Q. Good for you. It is a nice place. You also said that as part of your ongoing continuing education you

LOTT REPORTING, INC./928.776.1169 ·

said you are required to do eight hours of continuing education a year?

A. Yes.

- Q. That's essentially one day?
- A. Essentially, yes.
 - Q. So you, in order to maintain the minimum levels in your field, you have to attend one day of conferences a year?
- A. That's correct.
 - Q. And I thought you said that you also are required by your profession to read one paper a year?
 - A. I don't remember the exact wording of the requirement, but I do believe it just states that you have to read scientific literature annually. They don't specify how many documents you have to read, just that it has to be related to DNA testing in particular.
 - Q. So, if you said yesterday that the requirements in your field call for you to read one paper a year, that wouldn't be what you intended to say?
 - A. Well, it is correct because ordinarily when they audit you to see if you're complying with this they want to see proof that each DNA analyst has read at least one document a year.
 - Q. So, in order to maintain your certification as a DNA analyst, specialist, all you have to do is to read

```
1
    one paper a year?
 2
            Well, the audit is not for the DNA analyst, the
 3
    audit is for the laboratory. In order for the
 4
    laboratory to be in compliance, they have to insure that
 5
    their DNA analysts have read scientific literature,
 6
    which I have witnessed on an audit that they want to see
 7
    that each analyst has read at least one paper in the
 8
    year.
 9
       Ο.
           Okay. And you said that the laboratory is the
10
    entity that receives this certification?
11
           That's correct.
       Α.
12
           So let's talk a little bit about Sorenson.
       Q.
13
    Sorenson is a private company?
14
       Α.
           Yes.
15
           It is a for-profit company?
16
       Α.
           Yes.
17
       Q.
           That is, it is in business, like many other
18
    businesses in this community and in the United States,
    it's in the business of making money?
19
20
       Α.
           That's correct.
21
       0.
           It's not what we might think of as a nonprofit or
22
    a not-for-profit?
23
           That's correct.
       Α.
24
```

-LOTT REPORTING, INC./928.776.1169

And essentially what Sorenson does is it

provides, it offers its services to people who you call

your clients?

- A. Yes.
- Q. Most of those people who you call your clients are law enforcement agencies?
 - A. The majority of them are, yes.
- Q. And the way you approach, and in this question

 I'm saying you as the company, the way you approach

 these relationships with law enforcement and with others

 is the way any for profit business might approach its

 relationships with customers and clients?
 - A. Well, what's your definition of that?
- Q. Let me be more specific. The way Sorenson likes to see itself is as a partner with whomever asks for the company's services?
- A. Generally speaking, yes.
 - Q. And the idea of being a partner or a collaborator is really an important part of the work that Sorenson does when it develops relationships with outside agencies, particularly law enforcement agencies?
 - A. Yes. We do see ourselves as trying to be a collaborator with whomever is asking for our services, whether it be a law enforcement agency or a defense attorney or a private individual.
 - Q. You also do, the company does a fair amount of paternity testing?

- A. Our company, Sorenson Forensics, in particular, a small portion of our business comes from criminal paternity testing, but the sister company ReliaGene does the paternity company.
- Q. Which are owned companies, owned by the parent company?
 - A. Yes.

- Q. I think you told me that you don't know the, a lot about who actually owns the parent, but you know that there are sister companies that engage in the law enforcement work that we've talked about here and that also hold themselves out to do DNA testing, generally, and another company that does the paternity testing?
- A. I believe that our company is the only one that deals with the law enforcement, but I could be wrong about that.
- Q. That is what I meant to say. Your company deals with the law enforcement side, your sister company owned by the same parent does the paternity testing?
- A. That's correct. We do some paternity testing, but it is very limited.
- Q. If law enforcement comes to you, and this is an issue of paternity in your criminal case, your side of the company might deal with that?
 - A. It is not always law enforcement. We have a

client in Japan that sends us things regularly, I believe they are a private company as well, and sometimes we do paternity cases for them or test whatever items they might send us for DNA testing.

1.5

- Q. This case, the case involving our client, Mr. DeMocker here, is the first occasion upon which your company Sorenson entered into any kind of contractual relationship with the Yavapai County Sheriff's Office; is that correct?
- A. I don't really have that information. I'm not sure. I don't know.
 - Q. Do you think that there was some prior relationship? Do you have any reason to think there was?
 - A. I don't know if we've processed any cases for them before. I would have to look at our records that is back at the office. I'm not sure.
 - Q. But you certainly, personally, didn't have any relationship at all?
 - A. This was the first case I processed for them, yes.
 - Q. Do you know any of them in the company? You mentioned a couple other people. Anyone ever suggest to you that prior to this case the Yavapai County Sheriff's Office had some business relationship?

MR. PAUPORE: Objection. Calls for hearsay.

THE COURT: Sustained.

- Q. (Continued by MR. HAMMOND:) Let's talk a little bit about your job. Has that job description that you told us about yesterday changed since Ms. Chapman and I visited with you last April?
- A. No, it's not.
- Q. And at that time you thought that your work was about 50 percent supervision and 50 percent analysis?
- 10 A. Approximately.
- 11 Q. Still roughly; correct?
- 12 A. Yes. That's correct.
- Q. Did I hear you say, though, that you also are the, and I think you said the quality assurance person at the lab?
- 16 A. Yes.

3

4

5

6

7

8

9

23

24

25

- Q. Were you the quality assurance person when Ms.

 Chapman and I came to visit with you in April?
- 19 A. Yes, I was.
- Q. So when quality questions come up you're the person in the company who has the primary responsibility?
 - A. Well, the responsibility for quality, according to the FBI, always falls to the DNA technical leader, which at our company is Dan Hellwig. But as far as the

day-to-day operations of the quality program, I do handle those.

- Q. We're going to talk a little bit today about this episode that occurred that resulted in us spending two days with you and you changing your report. That episode resulted in what you said this morning was a nonconforming review, that is a review to determine what happened, I think you called it a root cause analysis?
 - A. A corrective action, yes.
- Q. Were you in charge of that?
- A. No, I wasn't. Obviously, it wouldn't be appropriate, since it was my error, for me to do my own corrective error, so Dan Hellwig did --
- Q. Are you telling me -- excuse me if I interrupted you. I don't know mean to do that.
- A. I was finished.

- Q. Are you telling me that if it hadn't been for the fact that the error that we're going to talk about was yours, you would have been the person conducting the nonconforming action review?
- A. Dan and I share that duty. It sort of depends. When an individual comes into the office and says, "Hey, I noticed this in my case, what do I do about it," Dan and I will talk about it and determine if a corrective action is needed. If one is needed, it depends on who

has time to do it and who was in the office when the person came, because we share an office, I am in the office and they tell me about it. I initiate the corrective action. If Dan is in the office and I'm not there, he may initiate the corrective action.

- Q. Who ultimately signs off on behalf of the company for any corrective action that occurs as result of a mistake?
- 9 A. That is Dan Hellwig. He signs off on all of 10 them.
 - Q. Why don't you sign off on it?
- A. I don't know. It is the DNA technical leader
 that has to be on the documents.
 - Q. So even if someone else had made the error, the ultimate nonconforming review responsibility, would still have been Dan Hellwig?
- 17 A. Yes. Absolutely.
- Q. Let's talk a little bit about the DNA work you did in this case.
- 20 A. Okay.

1

2

3

4

5

6

7

8

11

14

15

16

21

22

- Q. You probably know or have been told along the way that you really are the first DNA related witness who has been called in this trial?
- A. I actually wasn't aware of who testified prior to me.

- Q. Well, I will tell you that you are the first witness in this case who has talked about DNA.
 - A. Okay.

- Q. So I want to take advantage a little bit of your experience to talk about a couple of the most basic things.
 - A. All right.
 - Q. So let's talk first about DNA. Okay. Let me ask you if you agree with this statement: If you want to identify a person there may be no better tool?
- A. Are you done? I'm sorry. No better tool than 12 DNA?
 - Q. No better tool than DNA.
 - A. I would agree with that. They may be no better tool.
 - Q. There may be no better tool. Actually, one of the best fields of examples of that fact that for identification purposes there may be nothing better in the field of missing persons?
- 20 A. DNA is often used in missing persons.
 - Q. And when you are looking for a missing person, obviously, if, for instance, a body is found somewhere, one of the important things that society has to do and law enforcement has to do is to see if they can identify who that person is?

A. True.

- Q. And before we had DNA, typically, the hope was that there would be some other unique identifying attribute like the fingerprints; right?
 - A. Sure.
- Q. Okay. This is not a trick question, you don't need to --
- A. I'm just trying to make sure I answer it correctly.
- Q. But in the years since DNA, when there had been missing persons, if there is DNA available, that's what we would most want to do, is to get the DNA from the body of the missing person, for instance, and compare it to any DNA if we happen to have some?
- A. I haven't worked a lot of missing person cases myself. I don't know exactly how those are conducted. I know I personally have not worked on any cases that I'm aware of where they've tried to identify a body based on, based on DNA. Ordinarily, we're submitted a reference sample from the body that says this is the DNA from the body.
- Q. In your reading as DNA specialist, have you read much about 9/11?
- A. No. Not much.
- Q. Are you aware that maybe the largest single DNA

project in world history was the identification of people after 9/11 at the World Trade Center?

- Α. When you say missing persons, I'm thinking you mean, perhaps, a dead body is found, not pieces all over the place and they're trying to put that together. have worked on a Lebanon airplane crash where you are trying to bury somebody's family member, you want to put all those pieces in the same box. If for that purpose, I understand.
- Q. Let's talk about that purpose. That is really a class of missing persons and there were a lot of them at the World Trade Center, as you know.
- Α. Right.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

20

21

24

- Q. Whose identity was not known?
- 15 Α. Correct.
- 16 And I assume you know that the New York City 17 Crime Lab put together a huge project based entirely 18 upon DNA?
- 19 Α. Right.
 - 0. In an effort to help families identify loved ones who might have passed away?
- 22 Α. Right.
- 23 And really for many people that experience of Q. 9/11 and the first couple years afterwards gave huge 25 interest in the DNA work. Do you agree with that?

- A. I think there was interest before then, but it may have headed to it, yes.
 - Q. There was interest and actually the DNA field goes back 20 years?
 - A. Yes, it does.

- Q. But I think you would agree from your reading that the emphasis upon DNA as a tool has really continued to increase at a very dramatic rate, particularly in the last ten years?
 - A. I would agree with that statement.
- Q. And things about the 9/11 and the Libyan bombing and many others have contributed to that?
 - A. Absolutely they have.
- Q. And, indeed, along the way, what has happened is that DNA has become what you might call the gold standard?
- A. It's -- yes. I would have to agree with that and forensics.
- Q. And the field of forensic science people often say DNA is the gold standard?
- A. I haven't heard that exact phrase before, but I do think that we stand out in the forensic community because of all of the auditing that we require, all the standards that we have. There is a lot of forensic fields that do not have all those requirements and we

do.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

22

25

- Q. And often the rigor, the attention brought to DNA work has been used as an example of how we can improve in other forensics science?
 - A. Yes, it has.
- Q. You said one of the reasons why DNA has become as respected a field as it is is because of the extensive regulations?
- A. Yes. That's true.
- Q. You said several times that your laboratory is regulated by the FBI?
- A. I don't think I used the term regulated, but we do have FBI set standards for all DNA testing laboratories that we have to follow. They are not the actual body that enforces those standards.
- Q. There is not really direct FBI enforcement or compliance with standards set in this field?
- 18 A. Not that I'm aware of.
- Q. And the standards themselves, and I don't want to quarrel with you, but the standards themselves are not actually made by the FBI?
 - A. No, they're not.
- Q. The standards actually come from something called a scientific working group?
 - A. Well, the base of the standards come from the

scientific working group. It was the DNA advisory board that worked with the FBI that created the standards.

- The scientific advisory board came up with some Q. ideas and that board that had members of the FBI on it?
 - Α. Yes.
- 0. And others?
- Α. Yes.

1

3

4

5

6

7

8

9

11

15

16

17

18

19

20

21

24

- And then they got together and they decided to Q. create a scientific working group?
- 10 Α. That's correct.
- 0. The working group goes under a horrible acronym 12 called SWGDAM?
- 13 Α. SWGDAM, scientific working group for DNA analysis 14 working methods.
 - It was that working group, certainly with the contribution of the FBI, that established the standards that now have become hallmark of a good DNA lab?
 - Α. Yes. That's true.
 - Okay. Laboratories and a lot of the research that has been done around the country has benefitted from a very large infusion of public money; correct?
- 22 Α. I believe the majority of it is public 23 money.
 - A lot of federal money involved in the development and advancement of DNA in this country?

- A. As far as the development and the research, I'm not sure exactly where that funding comes from. I was thinking more along the lines of who ends up paying for a lot of the DNA testing.
- Q. And, of course, the government pays for a lot of that, too, but the basic scientific work, the work that has led to the refinement of DNA, some of the things that you talked about yesterday and that we'll talk about today, really came about as a result of extraordinary infusions of federal money?
- A. I'm not sure where the source comes from. I know the organizations, but I don't know who funds them.
- Q. So you don't follow the federal government funding of DNA research?
 - A. No. That doesn't really peak my interest, no.
- Q. Do you know if you ever want to take a sabbatical and work on a grant?
 - A. If I would ever want to do that?
- 19 0. Yeah.

- A. No. I don't believe so.
- Q. Maybe that's why it is not of interest to you.
- A. Perhaps. I don't have much interest in research.
 - Q. I'm sorry about that. One of the things you said is that one of the reasons that we can feel confident about DNA work is that there are protocols that govern

- 1 | all aspects of the work that you and your colleagues do?
- 2 A. Yes.

4

5

6

7

8

14

15

16

17

18

19

25

- Q. You've called those protocols, that they're also called SOPs?
- A. Yes.
- Q. Stand order, I think you called them standard operating protocols?
 - A. Standard operating procedures or protocols.
- 9 Q. Standard operating procedures is the more common 10 phrase?
- 11 A. Yes.
- Q. Fair to say that Sorenson and you individually try to take those protocols seriously?
 - A. Absolutely.
 - Q. And one of the reasons why you want to take those protocols seriously is that you are going, your lab is going to be audited from time to time by outside organizations?
 - A. That's true.
- Q. I think you may have said yesterday that the auditing was done by the American Society of Crime Laboratories?
- A. American Society Of Crime Laboratory Directors,
 Laboratory Accreditation Board.
 - Q. That's really the correct statement, is that

- there, it is not ASCLD itself that does the audits?
- 2 A. I said ASCLD Labs.
 - Q. There is a separate entity called ASCLD Labs?
- 4 A. Yes.

3

5

7

8

9

21

22

23

24

- Q. And they come around and they do audits?
- 6 A. Yes.
 - Q. And sometimes agencies pass those audits and sometimes they don't?
 - A. That's correct.
- Q. And there are now stories in the press very frequently about the failures of some laboratories to meet ASCLD's standards?
- A. I don't know if it would be very frequently, but it does unfortunately happened.
- Q. It happens in places where you've been, it has happened in Texas?
- 17 A. Yes.
- 18 Q. Hugely happened in Texas?
- A. Yes. The Houston Police Department was a very large story a few years ago.
 - Q. And, unfortunately, there is now a very large story involving ASCLD and its failure to properly evaluate the state laboratory in the State of North Carolina?
- A. I'm not actually aware of that particular

situation.

1

2

3

4

5

6

7

8

9

10

12

13

14

- Q. But are you aware that it has been front page news around the United States for the last two weeks?
- A. No, I haven't. I've been very focused on preparing for this trial so I haven't picked up a paper.
- Q. Let's talk about the steps that you visited about a little bit yesterday with Mr. Paupore on the DNA process, the work that you all do. Okay? Fair to say that all DNA work that eventually gets to an analyst has to begin with collection?
- 11 A. Yes.
 - Q. Again, to make clear, you've had absolutely no involvement with the DNA collection in this case?
 - A. That's correct.
- Q. You had never been to the crime scene?
- 16 A. That's correct.
- Q. You never saw the victim, you weren't around at the time of the autopsy?
- A. No. I have no knowledge of any of that.
- 20 Q. You certainly, until you came into the court, you 21 never saw or met Mr. DeMocker?
- 22 A. No, I hadn't.
- Q. And, indeed, until I interviewed you in Salt Lake
 City, you had been involved in the case for some number
 of months and were not even aware that it was a case at

which, at that time the State of Arizona was seeking the death penalty?

- A. No. I hadn't had any information about the court case at all.
- Q. You were surprised when I told you that this was a death penalty case?
- A. I wouldn't say I was surprised, but I didn't know the information.
- Q. The items that were collected that you had no involvement in were eventually, at least some of them, found their way to your laboratory?
- 12 A. Yes.

3

4

5

6

7

8

9

10

11

13

14

15

16

17

18

19

- Q. And I think we talked during the course of your direct examination about what turned out to be maybe eight areas, or eight items, and let's be sure that we have them all here before lunch and then we'll talk about them in more detail after lunch. The first item that you have talked about is a hair?
 - A. I talked about an apparent fiber.
- Q. It was something identified to your laboratory as a hair?
- 22 A. Yes.
- Q. And do you recall in the materials you received being informed that that was a hair that had been collected at the time of the autopsy in this case?

- A. Yes. I recall that being in the material.
- Q. And that the hair itself was found as part of the trace evidence examination at the beginning of the autopsy by Dr. Keen?
 - A. I don't know if that information was provided.
- Q. Do you remember that the hair was thought to have been located on the back of the running shorts of the victim?
- 9 A. I don't recall if that was included in the 10 information or not.
- 12 It was given an evidence item number?
 - A. I know it was identified with such a number, yes.
- Q. Does the number 406 conform to your memory?
- A. I would have to look at the case notes.
 - Q. We'll come back and look at it. The second item, and this may not be exactly the order in which you mentioned them, but in your reports you talked about a lithium battery?
- 20 A. Yes.

2

3

4

5

6

7

8

13

16

17

18

- 21 Q. From a cell phone belonging to the defendant?
- A. My understanding was that that belonged to a cell phone found in the woods.
- 24 Q. I'm sorry?
- A. My understanding was that was a cell phone found

1 in the woods.

2

3

4

5

6

7

8

9

10

19

20

21

- Q. A cell phone found in the woods?
- A. I would have to look at my notes to confirm that information, but just in my memory that is what I recall. I could be wrong.
 - Q. Do you recall being told at some point that there was a cell phone collected from Mr. DeMocker's home?
 - A. No. I don't recall the information.
 - Q. The evidence item is in your documents, but it's evidence item 408. Does that ring a bell with you?
- A. Again, I would have to look at the case notes. I don't remember any of the specific item numbers.
- Q. Do you know that wherever you might have thought the item was found that it was thought to be Mr.
- 15 DeMocker's --
- 16 A. Yes.
- 17 Q. -- cell phone that had a lithium battery --
- 18 A. Yes.
 - Q. -- inside of it? You know, I take it with respect to that item you were being asked to look for the victim's DNA?
- 22 A. Yes.
- Q. You were being asked by the sheriff's office to
 determine whether the victim's blood or the victim's DNA
 had somehow gotten onto that battery?

- A. I would have to look at my notes before I would speak as to what they specifically asked us to do, but it is to my understanding that that is what we were looking for.
- Q. And you concluded in that case that there was no DNA from the victim?
 - A. I would have to look at my report again, but I don't recall.
- Q. Why don't you take a look at that over the lunch hour and we may be able to save a few minutes this afternoon.
- 12 A. Okay.

2

3

4

5

6

7

8

9

10

11

13

14

- Q. The next item was the cell phone that was identified to you as the cell phone of the victim?
- A. I don't recall that item.
- 16 Q. This is, I'm sorry, you don't recall the item?
- A. Are you speaking of the handset telephone?
- 18 | Q. Yes.
- A. I'm sorry, I didn't think of that as a cell phone.
- Q. And it may not be a cell phone. That is a fair point. It is evidence item 507?
- 23 A. Yes.
- Q. And you know, I take it, that that cell phone was found in the bedroom where the victim's body was found?

- A. I did believe it to be a telephone in the victim's residence or near the victim, yes.
 - Q. And so that was the third item and that's item 507. We'll talk a little bit more about that. Okay?

 The next item was a door handle. Do you recall being asked to do some analysis with respect to a door handle?
- A. Again, I would have to look at my report. I don't specifically recall that item.
- 9 Q. Maybe you can look at that over the lunch hour, 10 too. It's item 805.
- 11 A. All right.

4

5

6

- 12 Q. In the materials --
- A. Could I have my report here when we discuss these items?
- 15 Q. You certainly can.
- 16 A. That would help a lot.
- Q. You certainly can. And the fifth item was a washer hose?
- 19 A. I do recall that item.
- Q. And that washer hose you were told had come from
- 21 Mr. DeMocker's home?
- 22 A. Yes.
- Q. And you know that that washer hose was sent to
- 24 | Sorenson?
- 25 A. Yes.

- Q. And you talked about it, you said this was the one that was cut into little pieces?
 - A. Yes.

- 4 Q. And that item, ultimately, your company decided not to test?
- 6 A. Yes.
- Q. Okay. The sixth item is the one that you talked about a good deal, the fingernails from the left hand --
- 9 A. Yes.
- 10 Q. -- of the victim? And you had, your company had
 11 both the left-hand fingernails themselves and an
- 12 extract?
- 13 A. Yes.
- Q. And the extract had been provided to you by the
 DPS Northern Arizona --
- 16 A. Yes.
- Q. -- crime lab? So that was the sixth item. The seventh item was a swab from the left hand --
- 19 A. Yes.
- 20 Q. -- of the victim? And that swab had come to you 21 from DPS?
- 22 A. Yes.
- Q. The last item that you looked at was the extract from the right fingernails?
- A. I don't know if it was the extract or if it was

the actual fingernails themselves. I believe it was the fingernails themselves.

- Q. Might have been buccal?
- A. I would have to look at my notes.
- Q. And those items were the eight items that you wound up writing a report about and coming in here and testifying about?
- A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

15

16

18

19

20

- Q. Okay. And so in order to do the work that you've told us about, somebody collected all of those items and they were processed and they've been through the, as I understand it, a varying extent of several different agencies?
- A. I suppose that would be true, yes.
 - Q. They had to be collected by somebody, many of these items had already been analyzed?
- 17 A. That's true.
 - Q. There's really very little here that hadn't been previously analyzed and you understood that from the very onset?
 - A. Yes.
- 22 Q. Analyzed by the DPS crime lab --
- A. That's my understanding, yes.
- Q. -- in Flagstaff? So each of the items,
 ultimately, now with the exception of the drain hose,

all of those items went through what you call serology?

A. Yes.

1

2

3

4

5

6

7

8

9

18

19

21

22

24

- Q. Tell us again in a few words what you mean when you say serology.
- A. Serology for us is either the identification of a body fluid or it can be preparing the sample for DNA testing.
- Q. And what you are really doing is preparing to test for the presence of DNA?
- 10 A. Yes.
- Q. Could be that that a serologist might look at an item and find that there is no DNA on it?
- A. We may not find anything suitable for DNA testing, that's true.
- 15 Q. You've told us that you've done serology work on other matters?
- 17 A. Yes.
 - Q. But you had no involvement in the serology work done in this case?
- 20 A. That's correct.
 - Q. Do you recall who the individuals were who actually did the serology on the items I just mentioned?
- A. It was Stephanie Masters.
 - Q. Did she do all of them?
- 25 A. I believe, yes.

- Q. What about Linda Silva?
- A. She is an employee at our laboratory. I would have to look at my notes to see if she touched any of the items. I thought it had only been Stephanie

 Masters. But, again, without my notes, I'm just trying to recall. If you would like exact accurate answers I can bring out my case file.
- Q. If may not matter who they were. Do you believe that all of these items were done by the same person?
- 10 A. I thought they had been, yes.
 - Q. You know that when the serology work, at least some of it was done in this case, in the report that you've talked about on direct examination, the defense had an expert present?
- 15 A. Yes.

2

3

4

5

6

7

8

9

11

12

13

14

- 16 Q. Her name is Nora Wooden?
- 17 A. Yes.
- 18 Q. She's actually here in the back of the courtroom 19 today?
- 20 A. Yes.
- Q. You know that she was, she was there by court order to observe the serology work that was being done?
- 23 A. Yes.
- Q. Let's talk about the next phase after serology, it's what you call lab wet work?

A. Yes.

- Q. Why do you call it lab wet work?
- A. It is the work that is actually done on the bench. It involves the use of the chemicals and adding things to the tube, adding liquid around so in that way it is wet as opposed to the analysis which is done at your desk.
- Q. And the words you used to capture some of the things that happened during lab wet work are words common in the DNA field, the first one being extraction?
- A. Yes.
 - Q. There has to be a process of DNA extraction from whatever item has been identified in the serology work done on it?
- 15 A. Yes.
 - Q. You also talked about a word that you said was either quantification or quantization?
 - A. Depending on where you work, both terms are used.
 - Q. And that is part of the lab work done on all of the items here if they went beyond the serology stage?
 - A. Yes.
 - Q. Figuring out the quantity of available DNA for testings is an important part?
- A. It is very important, yes.
 - Q. And then you talked about amplification?

A. Yes.

- Q. And really amplification, although we could spend a couple days on it, is really one of the key things that has happened that has made DNA testing so valuable?
 - A. Yes.
- Q. Now, we can take very small amounts of DNA and make them into something that can actually be analyzed?
 - A. Absolutely.
- Q. And then the process itself is one that I guess we could all do a seminar on and spend a fair amount of time, and some of us might enjoy it and some of us might not, but in those few words an amplification, quantification and amplification -- excuse me, extraction, amplification extraction and quantification are really a large part of the learning process that people employed in your lab have to go through?
 - A. Yes, it is.
- Q. And all of that, assuming that there are any observable results, leads to the stage that you were involved with?
- A. Yes.
- Q. You had no involvement in anything that we've done or talked about so far, but you did the work that you call the analysis?
- 25 A. Yes.

- Q. And the analysis here is actually a phase that you can do, as I think you said, sitting at your desk?
- A. Yes.

2

3

4

5

6

7

8

9

- Q. You're actually looking at results that come out of a computer?
- A. Yes.
 - Q. You are examining those results and hopefully taking those results and coming up with things that you could put into what's called a profile?
- 10 A. Yes.
- 11 Q. It might be in a table form?
- 12 A. Usually.
- Q. And that profile, if we're talking about Y-STR testing, which is most of what we're talking about, is going to, as you say, look at 16 locations?
- 16 A. Yes.
- 17 Q. Along a strand of DNA?
- 18 A. That's correct.
- 19 Q. And it is going to try to help you pull out a 20 number, if you're lucky, for each of those locations?
- 21 A. Yes.
- Q. So that you can then take that profile, if you will, and use it for purposes of comparison?
- 24 A. That's correct.
- 25 Q. And what you were doing was developing those

```
1
    profiles and some kind of a summary form?
 2
       Α.
           Yes.
 3
            So that they could then be the subject of
       Q.
    comparison against known samples?
 4
 5
       Α.
           Yes.
 6
       0.
           Or against other unknown samples?
 7
       Α.
           Yes.
 8
                 MR. HAMMOND: Your Honor, I think this would
 9
    be a convenient time.
10
                 THE COURT:
                             Thank you, Mr. Hammond.
                                                       Ladies
11
    and gentlemen, we will take the noon recess at this
12
    time. Remember the admonition. Please be in the jury
13
    room by 1:20. You are excused at this time, as are you,
14
    Ms. Brown, as well.
15
       (Whereupon, a recess is had from 12:01 p.m. to 1:30
16
    p.m., at which time a lunch recess is had.)
17
                 THE COURT:
                             The record will show the
18
    presence of the defendant, all the attorneys, the jury
19
    is present and the witness is on the stand. Mr.
20
    Hammond, you may resume your cross-examination.
21
                MR. HAMMOND: Thank you, Your Honor.
22
       0.
           (Continued by MR. HAMMOND:) Good afternoon Ms.
23
    Brown.
24
       Α.
           Good afternoon.
```

-LOTT REPORTING, INC./928.776.1169 -

Let's go through the different chronology that

25

Q.

```
you and Sorenson did in this case and we'll try to move forward with it as quickly as we can. Is it good to say and safe to say that all your involvement in this case is relatively recent?
```

- A. Relatively, yes.
- Q. 2010 has all been your involvement in this case?
- A. Yes. All been in 2010.
- Q. Right. I think you may have said that you knew that Lieutenant Rhodes had come to Salt Lake City in February?
- 11 A. Yes.

2

3

4

5

6

7

8

9

10

12

13

23

- Q. February of this year, and that you knew that he brought items of evidence with him to the laboratory?
- 14 A. Yes.
- 15 Q. And he met with a couple of your colleagues?
- 16 A. Yes.
- Q. Do you recall the individuals he met with?
- A. I know he met with Dan Hellwig our technical leader, as well as Carma Smith our evidence custodian.
- Q. She's also, she's the evidence custodian and she is also the intake person up there?
- 22 A. Yes.
 - Q. You, of course, were not there?
- A. That's correct.
- 25 Q. But one of your company's practices is to have

the intake coordinator draw up a little memorandum
summarizing the communications between, in this case,
Captain Rhodes and your organization?

- A. Our particular evidence custodian does serve that function occasionally, yes.
- Q. And you know and refer to in your direct examination that a case note was done?
 - A. Yes.

- Q. And the general idea that you and your colleagues obtain from the meeting that Captain Rhodes had was that the sheriff's office was interested in testing or retesting items that might then be compared with the victim, Steve DeMocker, or James Knapp?
- A. Do you mind if I look at my notes just to refresh my memory?
- Q. No. No. In fact, you can look at yours and if you don't have yours readily available, I have an extra copy.
- A. I tagged it. I figured we would probably need it.
- Q. Okay.
- A. Yes. Those were the three people, according to my case note, those were the three people that were indicated during that initial meeting was, as you said, Virginia Kennedy, James Knapp, they refer to him as Jim

Knapp, but James Knapp, and Steve DeMocker.

- Q. Okay. And you, in addition to knowing that your company was receiving these items of evidence for examination, you also received reference samples?
- A. We did receive a reference sample of James Knapp.

 The other references came from, they were the profiles developed by the Arizona lab.
- Q. Okay. So you had a reference sample for James Knapp; is that correct?
- 10 A. Yes.

1

2

3

4

5

6

7

8

9

11

12

13

14

15

16

- Q. And you, as far as your analysis with the victim in this case, Carol Kennedy, Carol Virginia Kennedy, you had a profile that had been developed by the DPS lab?
- A. Yes.
- Q. You didn't get your own sample and then do your own tests on it?
- 17 A. That's correct.
- 18 Q. And the same was true with Steve DeMocker?
- 19 A. Yes. That's true.
- Q. There were several items that were, that were brought to you that Sorenson decided ultimately not to test, not to test at all?
- 23 A. Yes.
- Q. There were several, one of them was an item that the jury has heard about that we call the desk trim. Do

- you remember that there was desk trim from a desk in the bedroom that was sent to Sorenson?
 - A. I don't recall, but I could look in my notes and tell you for sure.
 - Q. Okay. Would you do that?
 - A. Sure.

4

5

6

7

8

- Q. It might help if I pointed it out to you and maybe you've already found the page.
- 9 A. I found it. It does show that we did receive 10 that desk trim item. It's identified as number 506.
- 11 Q. Correct.
- A. I do show that we did receive the item in February.
- 14 Q. And was any analysis done on that item?
- A. I don't believe that any was requested on that particular item.
- Q. Do you know why it wasn't requested?
- A. No, I don't. I know that after the consultation
 with our DNA technical leader it was decided between the
 two parties not to do that particular item. I don't
 know why.
- Q. You don't know why, you weren't part of the conversation?
- 24 A. No.
- Q. They also brought up to you something that the

```
1
    jury has heard described as the Callaway Big Bertha head
 2
    cover?
 3
       Α.
                  I did see that on this list as well.
 4
            That was also brought and for some reason no
 5
    further testing was done on that?
 6
       Α.
            Correct.
 7
            And, again, that might have been the result of a
 8
    conversation between your technical leader and Captain
 9
    Rhodes --
10
       Α.
           Correct.
11
       Q.
            -- that you were not involved in? And then there
    were shoes, socks, and clothing?
12
13
       Α.
           Yes.
14
       Q.
           Brought up to you?
15
       Α.
           Yes.
16
           Do you know whose those were?
17
           Let me see if it's indicated. It states on my
       Α.
18
    case submission form, do you need me to reference the
19
    page?
20
       Q.
           I think I have it.
21
                 MR. HAMMOND:
                               Might I approach?
22
                 THE COURT: Yes.
23
                 THE WITNESS: I think we have the same page.
24
    Yep.
          That's it.
```

-LOTT REPORTING, INC./928.776.1169 -

(Continued by MR. HAMMOND:) You can refer to

25

Q.

your page number if you would like.

- A. Actually, this particular document isn't page numbered, but I am showing that, it is showing suspect items found in washing machine.
- Q. Would you read into the record the numbers associated with those items?
- A. Sure. We have it identified as item 607 through 610.
 - Q. Do you know where those numbers came from?
- A. I don't know. They are referred to them as client items number, I don't know if it is Arizona DPS or the Yavapai County sheriff's office. I don't know.
- Q. Do you know what you looked at to see whether those items you just read, 607, 608, 609, 610, are, in fact, Steve DeMocker's running clothes and shoes?
- A. I don't know if I would have any way to discern that information.
- Q. So you can't tell us whether those items actually belonged to Carol Kennedy or to Mr. DeMocker?
- A. Not based on this page that I'm looking at other than the information that was written down here by our evidence custodian.
- Q. But in any event no additional testing was done on those items?
 - A. Right.

```
1
           And we'll have to leave for another witness
       0.
 2
    finding out whether those items were, in fact, Steve
 3
    DeMocker's or the victim?
 4
       A.
           Yes.
 5
                MR. HAMMOND: Do we have an item number of
 6
    the golf cover?
 7
                THE COURT: Do you have that?
 8
                MR. HAMMOND: Yes. It has been identified
 9
    as 3500.
10
                THE COURT:
                             Thank you, Mr. Hammond.
11
       Q.
           (Continued by MR. HAMMOND:) So setting the
12
    things aside that you know were not done anything with
13
    or not touched at all, we started on a little list
14
    before lunch and let's see if we can't move through
15
    this.
           The first item was the hair, and I've done a
    little list here so that we can, this is just my own
16
17
    list that I did over the lunch hour with the help of my
18
    friends.
              It is the list that we talked about this
19
    morning.
              The first item there was the hair, which is
20
    Item 406; correct?
21
       Α.
           I'm showing Item Number 605.
22
       Q.
           I'm sorry, it is Item 605. Let me change that.
23
    You are exactly right. That is 605. And this is the
24
    item that we talked a little bit this morning and I
```

turned it off a minute, I don't like to leave it on

while I'm trying to talk. That item was one that was brought up and a serology examination was done?

A. Yes.

1

2

3

4

5

6

7

8

9

10

- Q. Your serologist looked at what had been sent to you and concluded that it was not a hair?
 - A. Yes.
 - Q. The serologist concluded that it was fiber?
- A. An apparent fiber. Again, she's not qualified to state if it is a fiber or not, she can only say what it appears to be.
- Q. Do you recall that the sheriff's office, Captain
 Rhodes wanted a quick turnaround on this particular
 item?
- 14 A. Yes. I do recall that.
- 15 Q. And you all did comply with that, you wrote and 16 the company sent out a report?
- 17 A. Yes.
- 18 Q. It looks like the item was sent up on the 5th of 19 March?
- A. Let me double-check that. Yes. It appears that was received on March 5th.
- Q. And your report, which was introduced this morning, was sent out on the 11th of March?
- 24 A. Yes.
- Q. And this is the report itself, which is Exhibit

LOTT REPORTING, INC./928.776.1169 ·

1 3236. By the way, how does Sorenson send these reports out?

- A. I believe in this case we sent them through what we call an FTP website. Essentially what that is the client gets, from my understanding, again, I've never sent it out myself, but from my understanding they receive an e-mail with a link to a website and a password and log in and they go to this secured website and they enter their password and are able to download the information.
- Q. And so in this case, Captain Rhodes is sitting in his office, could actually go to his computer and pull down the report?
 - A. That is my understanding, yes.
- Q. Simultaneously with the date that it is sent?
- 16 A. I believe that's correct.
 - Q. And in this case, as we have, we see in Exhibit 3236, Sorenson concluded that there was no apparent biological material present, therefore, no testing was performed?
- 21 A. Yes.

- Q. And you didn't do a reexamination yourself of the conclusion that Stephanie masters came to?
- A. That's correct.
 - Q. And why did you not do an independent review of

that item?

- A. Stephanie Masters is a qualified serologist, which includes her capability to examine hairs and to determine if they are suitable for DNA testing, I didn't find the need to.
- Q. You thought that it must have been pretty clear that it was not a hair?
 - A. Yes.
- Q. Did you ever at any point in time find out what happened to item that the initial records indicate was a hair?
- A. My understanding is that the hair was actually consumed at the Arizona Department of Public Safety and, therefore, was not in the envelope that we received.
- Q. How did you find that out?
- A. I just, I heard from Stephanie Masters. I don't know how she found out.
- Q. But even at the time of your interview you were not aware of what had happened?
- A. No. I was not.
- Q. You would agree that a human hair can be under some circumstances a very important piece of evidence?
- MR. PAUPORE: Objection. There is nothing in evidence that supports it is a human hair or what kind of hair it is at all.

1 THE COURT: Overruled. You may answer that. 2 THE WITNESS: Can you repeat the question? 3 (Continued by MR. HAMMOND:) Sure. Generally 4 speaking, in your field, the examination of human hair 5 can be under some circumstances a very valuable piece of 6 DNA evidence? 7 Α. I suppose in certain cases it could be. 8 Q. And, particularly, it could be if there was a 9 root? 10 Α. Yes. For DNA testing we really do need to see 11 that root testing for us to even have hopes of obtaining 12 a DNA profile. 13 Do you know whether at one time there was a root 14 on the hair that was consumed by DPS? 15 Α. I have some notes from the Arizona DPS in my case 16 file that I can reference to answer that question, but I 17 have no direct knowledge of it myself. 18 We'll have a DPS person here, but I take it when 19 you, when Sorenson received the envelope that you 20 thought contained a hair, you had no reason to think 21 that it had been consumed? 22 Α. I'm not sure. I don't know at what point it was 23 discovered that it was consumed. I'm not sure.

 \mathbb{Q}_{+} Do you have any reason to think that it was discovered before we did the interviews in Salt Lake

24

1 | City?

2

3

5

6

7

8

9

- A. I do think it was, yes.
- Q. Discovered by anyone in your office?
- 4 A. Yes.
 - Q. By whom was it discovered?
 - A. I don't, I just know that when I went back and spoke with Stephanie Masters after we had talked during my interview she told me that it had, to her knowledge, it had been consumed.
- 10 Q. Did Sorenson send out a correction of some kind?
- 11 A. A correction for what?
- Q. For the document that we just looked at that said that there was an apparent fiber?
- A. Well, that is what we found, we found an apparent fiber.
- Q. And has anyone gone back to look at what that might have been?
- A. I'm sorry, I don't understand what you mean.
- 19 Q. Maybe I'm over simplifying this in my own head.
- 20 If the hair itself had been consumed then whatever was 21 left was not a hair?
- 22 A. Right.
- Q. It could have been nothing, but instead of finding it was nothing, Sorenson found that there was something there?

- A. We did find something in the envelope, yes.
- Q. And that apparent something was described as a fiber?
 - A. Right. Well, as an apparent fiber, yes.
 - Q. Well, as an apparent fiber?
- A. Uh-huh.

- Q. Did anyone ever, after the 11th of March, go back and try to figure out what that was, what the apparent fiber was?
- A. At our laboratory we only do DNA testing, we're not fiber experts.
 - Q. So the answer is no, no one at Sorenson tried to figure out how it might have been that you thought you were getting a hair, didn't get a hair, but got something that you described as a fiber?
 - A. Well, as I said, we were informed that the hair had been consumed and that's why it wasn't present in the envelope.
 - Q. And you weren't interested in finding out then what was left in the envelope?
 - A. We did, we looked at what was left in the envelope and we made a report about it.
 - Q. And that, as far as you were concerned, that was enough?

-LOTT REPORTING, INC./928.776.1169

25 A. Yes.

And, in fact, when you wrote your report in April you simply included the line about that hair being an apparent fiber? Α. Yes. You didn't say that the hair had been consumed prior to the time that you received the envelope? Α. Well, again, I had no direct knowledge of that, so we did write about what we had direct knowledge It was an apparent fiber, not of any biological concern, and, therefore, didn't do any testing on it. Q. Just a matter of curiosity, when things like this happen, when one of your clients sends you something that they think might be relevant and have biological evidence associated with it, and you find out that it is not there, do you not typically do some follow up to say, "Hey, we can't find it, where did it go," anything like that? If we get an empty envelope certainly we would call them and say, "There is nothing in this envelope." To be honest with hairs, it's not too uncommon for hairs to get lost, especially if it is one hair. They are very prone to static in the hair and things like that. Q. And that is one possibility here is when

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

-LOTT REPORTING, INC./928.776.1169

hair had in some way been lost?

Stephanie Masters opened the envelope she found that the

- A. Well, she saw that the hair wasn't there and that, as I said, to our understanding the hair was consumed at the Arizona DPS Laboratory.
- Q. But you didn't want to find out about that, I don't want to pick on you about it, you didn't find out about that until a lot later?
- A. I don't know what time they figured that out. You are asking me questions about things that other people told me. I don't know when they found out.
- Q. But you then wrote a second and a third report that we will look at, one on the 14th of April and the 509 one on the 27th of April that you simply continued to say that there was an apparent fiber in the envelope but no hair?
 - A. Correct.

- Q. No investigation was done or reported by you to indicate what had happened to that, to that hair?
 - A. That was, that is not our duty in this case.
- Q. Okay. Let's talk now about the second item, talked a little bit about it before lunch, the lithium battery. You do recall that a lithium battery was sent to you?
- 23 A. Yes.
- Q. And you were told that that battery belonged to Steven DeMocker?

- A. I am seeing it. I did review the case notes over the break and it does indicate that, yes.
 - Q. Okay. And the reason that battery was sent to you, unlike other items that we've talked about over the last day and a half and are going to talk a little bit this afternoon, that particular item was sent to you to look for Carol Kennedy's blood or DNA?
 - A. Yes. That was what was indicated in the notes from the meeting.
- Q. Okay. And so, on that particular item you wouldn't do and didn't do what you call Y-STR testing?
 - A. That's correct.
- Q. You did an STR evaluation because you weren't looking for a man?
- 15 A. That's correct.

- Q. Have you found out where that battery was found and taken into evidence?
 - A. It's not noted in our case file where it was found and taken into evidence.
 - Q. Here is an exhibit that was entered into evidence a week or so ago. It's Exhibit 2959. This is a diagram that was entered into evidence from the, from Steve DeMocker's condominium. Let's turn it so that it's a little bit easier to see. The item number you were given for that lithium battery is Item 408; is that

correct?

- A. That's correct.
- Q. Do you see 408 here?
 - A. Yes, I do.
- Q. That item was found and taken into evidence off of a shelf in Steve DeMocker's condominium at that location. Okay?
 - A. Okay.
- Q. And you understand that the purpose for taking that battery, eventually through the way things happen in the holding of evidence and being sent to you, was to see if in some way that battery might connect Steve DeMocker to the death of Carol Kennedy?
 - A. Yes. I understand that.
- Q. And you eventually found and concluded that there was no DNA that could be associated with Carol Kennedy at all?
- A. We were not able to exclude her from that sample, but we were not able to include her either. It was an inconclusive result.
- Q. And when you say inconclusive, and we may talk about that a little bit more with respect to a couple other items, but inconclusive could mean a couple different things?
- 25 A. Yes.

- Q. It could be that there is insufficient DNA for you to make any kind of a judgment?
 - A. That's true.

2

3

4

5

6

7

8

9

10

11

12

- Q. And is that what you were saying here?
- A. No. In this particular case we could make exclusions. We reported the minor component of this battery suitable for exclusionary purposes only meaning we could exclude people but could not include anyone, again, because we couldn't generate the statistics to qualify the match.
- Q. Do you know how many STR, I guess it is a word we haven't used, but alleles were found on that battery?
 - A. I could take a look.
- Q. Why don't you do that.
- A. I count 27, not including the inconclusive DNA.
- 16 Q. You count 27 that in your judgment might be DNA?
- 17 A. Yes.
- 18 Q. And you know that the major contributor to those 19 was Steve DeMocker?
- A. According to our findings it matches him, yes.
- Q. Matched him and it wouldn't surprise you it
 matched him because it was a lithium battery from his
 cell phone?
- 24 A. Yes.
- Q. How many alleles did you report with respect to

Virginia Carol Kennedy?

- A. With regard to her DNA profile?
- Q. Uh-huh.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

- A. Let me take a look. 21.
- Q. Now when you said a minute ago that when you say that something is inconclusive you didn't mean in this case that you could make no meaningful comparison?
- A. No meaningful comparison is what we reported. It was a kind of inconclusive report. I was just trying to simplify.
- Q. Those are two different things; are they not?
- A. Well, when we say, when we generalize the kind of results we can get from DNA test results we normally say a match, exclusion or inclusion, those are the, no meaningful comparison is a more specific kind of inconclusive result.
- Q. And the more specific kind of conclusion is exactly what you arrived at here?
- A. Yes.
- Q. That is, that no meaningful comparison could be done?
- A. To Virginia Kennedy's profile, yes.
- Q. Right. That is what you reported?
- 24 A. Yes.
- 25 Q. Just to make sure we're on the same wavelength,

```
let's look at your report, to Exhibit 3226, just to make sure we have it. Here it is. The first, there's the first page of the report and the lithium battery is listed on there as Item 11; is that right?
```

- A. Yes. That's correct.
- Q. And then you deal with it specifically on the second page where you have two paragraphs about this item?
- A. Yes.

6

7

8

9

13

14

15

- Q. And you conclude it does match the profile of Steve DeMocker?
- 12 A. Yes.
 - Q. And you concluded that the minor DNA component was suitable for exclusionary purposes only and that no meaningful comparison could be made to Virginia Kennedy?
 - A. That's correct.
- Q. And that conclusion didn't change at a later time?
- 19 A. No.
- Q. The next item I want to talk to you about is the cordless telephone.
- 22 A. Okay.
- Q. 507. I think this morning you corrected me when I said it was a cell phone?
- 25 A. Yes.

- Q. It is what people called it, a Vtech?
- A. I was nervous that it was a kind of cell phone and outdated, being outdated in my cell phone.
- Q. The chances of you being more deprived of technology advances is very small. I'm confident of that. The cordless telephone is the item I wanted to touch on with you.
 - A. All right.
- Q. Okay. What did you do with respect to the cordless telephone?
- A. That is, we did Y-STR testing on that particular item.
- Q. Let me slow you down a little bit. You did Y-STR testing because you had been asked to look for the presence of male DNA?
- A. Let me see what the specific request was on that one because sometimes we choose to do Y-STR testing because of the quantifications we obtained. Let me see if that was specified from the beginning or that was a decision that we made. The, according to the notes that I have here, the request was just for testing on the telephone and during that meeting between Captain Rhodes and our technical leader, our technical leading decided we should do Y-STR testing on this particular phone.
 - Q. And, again, the technical leader was Mr. Hellwig?

A. Yes.

- Q. And the testing that you did was to compare the DNA, the male DNA that you might be able to get off of that cordless phone first with Steve DeMocker and James Knapp?
 - A. Yes.
 - Q. And what did you find?
- A. We found, we got a mixture from at least two males, the major was attributable to an unknown male, that major profile, we excluded Steven DeMocker and James Knapp, both as potential donors of that major profile. As to the minor Y-STR profile or component, I should say from that item it was suitable for exclusionary purposes only. So, again, we could only exclude people. We did exclude James Knapp and we found no meaningful comparisons could be made to Steven DeMocker.
- Q. So just as with the lithium battery that there was no meaningful result, no meaningful comparison?
- A. That's correct.
 - Q. That you could make between Steve DeMocker either for the minor excluded from the major?
- 23 A. That's correct.
- Q. And no meaningful conclusion could be drawn with respect to the minor?

A. That's correct.

1

5

6

7

8

9

13

18

19

20

21

- Q. Did you also compare the DNA profile that for the major profile against the DNA you have from the fingernails?
 - A. Yes, we did.
 - Q. And what did you find with respect to that?
 - A. That they were different Y-STR DNA profiles.
 - Q. When you say different, what do you mean?
 - A. They didn't match each other.
- 10 Q. So what does that mean?
- A. Two different alleles, two different paternal lines.
 - Q. So does that mean that you excluded 603?
- A. Generally we don't, we use the inclusion/exclusion terms only when comparing to reference samples.
- 17 Q. So why is that?
 - A. When you do an inclusion you have to back it up with statistics and, again, we need a reference sample to do that. We need one of those sources to be from a known person ordinarily to generate those statistics.
- 22 It's just an internal practice.
- Q. Even though you have a complete profile to Mr. 24 603?
- A. Right. But what are we going to call him in the

report, Mr. 603, we have no person to include or exclude. All we can say is that the two profiles don't match each other.

- Q. But the analysis is really the same analysis you could do whether you knew the identity of Mr. 603 or didn't?
- A. It is, it is just a matter of wording, it is how you word that. You are calling him Mr. 603. I don't think we could do that in our reports. That wouldn't be very professional.
- Q. So why don't you just say the Y-STR profile from item number 603?
- A. We did say that. We said that they don't match. I think we're just debating over semantics here. We did the comparison and they do not match.
- Q. And so you don't see that is in any way a different form of description from saying that someone either can or cannot be excluded?
- A. Right, because we have got no person here to exclude. We have no feasible individual to exclude. We just have a profile. There's a difference between making conclusions about people and making conclusions about profiles.
- Q. Okay. And so until 603 is found your laboratory would not do anything other than say it is not a match?

- A. If it was requested of us and both the defense and the prosecution agreed they wanted the report to say that, and our technical leader was happy with it, then we could change it if you would like.
- Q. So all we would have to do is enter into an agreement with the county attorney's office?
- A. I'm saying that now, but watch my technical leader would yell at me for saying that.
- Q. Let's look at the next item that I want to spend a minute with you on, Item No. 805, the door handle to the north door.
- A. I don't have an 805 on my report. Oh, I'm sorry you are talking about the extract from Item 805, our Item 8.
- O. Correct.

- A. The actual conclusions on that were on a previous report, but not on this report. We have a conclusion but it was just the tube was empty.
- Q. This is one that you said when you looked at the extract it was gone?
 - A. Correct.
- Q. Let's make sure that we all know what you're talking about. This is the first page of Exhibit 3226, again, and the line that you were looking at, let's see if I can, was the second line. This is your Item 8

which then became 1417?

A. Yes.

- Q. And then became the extract from Item 805?
- A. Yes.
- Q. What happened to the extract from 805?
- A. I believe it was consumed in the previous test that our laboratory did under part two.
- Q. Tell us how that happened. Let me ask a more specific question. That is not the best way to ask it. When you did your laboratory testing, apparently, had received something with respect to -- and I'll tell you that Item 805 is known to people in this case as the doorknob from the north door.
 - A. Okay.
- Q. And let me just show you where it is so that you can see it. Bear with me just a moment. So here is the map that's already in evidence as Exhibit 631 that people in this room have seen a great deal. Just so you know, the door that is known as the north door is this one here, is the door that goes out into the garage.
 - A. All right.
- Q. And what you have been sent was evidence with respect to the doorknob on that door.
- A. Is this the victim's home?
 - Q. I'm sorry, this is the victim's home.

A. Okay.

- Q. Thank you for asking. And so when you obtained what you call an extract, had somebody recognized that, somebody at Sorenson, that the extract had been received before?
- A. Let me look in my notes and I'll see if there is a note on it. Obviously, when I recognized it when I read the first two parts and found that we had already tested it. I mean, do you mean before I did my analysis, before the testing?
- Q. How about at the time you were doing, your people were doing the serology?
- A. I don't know what they were aware of at the time.

 Again, I'll look through my notes and see if there is

 anything in the notes, but that doesn't mean they

 weren't aware of it if it wasn't in the notes.
 - Q. Maybe I can help you.
- A. I'm just looking through our notes. I don't see any serology notes regarding those two items. Oh, here they are. Sorry. Yes. Our serologist was aware. She identified this as these two items. First of all, she gave them the same item numbers that they were called in part two. If she thought they were new item numbers they would have new numbers and the package was identified as being called the case number part two.

So, yes, she was aware they were tested before.

- Q. And though she did open them up and look at them and determine that they were empty?
 - A. Yes.

1

2

3

4

5

6

7

8

9

10

13

15

16

21

25

- Q. Why did she do that?
- A. It is our serologist's job to prepare a sample for DNA sample and with extracts that we receive because we receive extracts from other laboratories quite often. It is their job to document how much liquid is remaining in the tube.
- Q. Did you receive anything else with respect to the doorknob on that north door?
 - A. As far as actual evidence items?
- 14 Q. Yes.
 - A. Let me see.
 - Q. Either the doorknob itself or a swab?
- A. Give me just a moment. We had several
 submissions in this part, so give me just a minute to
 flip through all of them, unless you know which document
 would have it.
 - Q. I think the answer may be --
- A. Okay. I do see we have swabs of door handle of north hallway to the garage door number 805. They were submitted to us.
 - Q. What happened to them?

- A. Apparently we did not test those particular items.

 Q. Now how could that be?
 - A. I don't know. We received the extract and we were going to test the extract. We found the extract tube was empty. We reported that.
 - Q. And you also had the swab, but nobody tested the swab?
 - A. Doesn't appear that they did, no.
 - Q. Did the swab eventually go back to DPS?
 - A. I actually don't have the returned documents printed out. We've got up until the analysis is done as far as chain of custody goes, that is in the case file, and the return documents are completed at a later date.
 - Q. Was there ever a time when somebody noticed or brought to your attention that there had been an expectation by law enforcement that someone was going to do a further examination of the north door?
 - A. You know, we did do additional testing in this case. I could take a glance at my other reports and see if we did anything. I don't have those complete case files that would document anything like that.
 - Q. Let me ask you a different question. I'm not asking you, I think we've all seen what's been done since and nothing has been done on this?

```
1
           Actually, I might want to check my reports and
 2
    see if we tested them in the future after these were
 3
    completed. I don't know if they were done or not, I'm
 4
    assuming that for this part they were tested.
                                                     No.
                                                          They
 5
               But whether there was a previous report, I
    were not.
 6
    would have to look at a previous report.
 7
       Q.
           And if --
 8
                 MR. PAUPORE:
                               I hate to interrupt, Mr.
 9
    Hammond, but may we approach?
10
                 THE COURT: Yes.
11
        (Whereupon, a sidebar discussion is held off the
12
    record.)
13
                 THE COURT:
                             Thank you, ladies and gentlemen.
14
    Again, if you do want to stand and stretch, move a bit
15
    when we have the sidebars, please feel free to do that.
16
       0.
           (Continued by MR. HAMMOND:) Ms. Brown, let's
17
    spend just a minute talking about nomenclature. Okay?
18
       Α.
           Okay.
19
       Q.
           The way that you and your profession and Sorenson
20
    business name and label the things that you receive?
21
       Α.
           Okay.
22
       Q.
           Let's talk about the doorknob. You, in your
23
    report in April, you acknowledge that Sorenson had
24
    received an extract?
```

-LOTT REPORTING, INC./928.776.1169

25

Α.

Yes.

- Q. Okay. When you say you had received an extract, what had you received?
 - A. An extract is the DNA floating neutral solution in some kind of tube.
 - Q. It's actually, you've already gone through what we know of, and what you've described as the serology of things?
 - A. Yes.

4

5

6

7

8

9

10

16

17

18

19

20

- Q. So in the course of serology, the something was obtained at one time and that became the extract?
- 11 A. That's correct.
- Q. And it's the extract that then is used in the subsequent, what you call, the wet lab phase?
- A. Right. We don't re-extract it, we pick it up at quantitation.
 - Q. And in this case you said that Sorenson had received an extract previously?
 - A. Yes.
 - Q. And indeed, if you want to refresh your memory, you've got there the report that you referred to for yourself?
- 22 A. Yes.
- Q. To help you confirm that, in fact, you had received the extract?
- 25 A. Yes.

- Q. You received it, Sorenson received it sometime back in 2008?
- A. I'd have to look at the documents from the previous part to say exactly when we received it and I don't know if we sent it back to the Yavapai County Sheriff's Office, I'm sorry, to the Arizona DPS and then they sent it to us, but I could dig through here and see.
- Q. If you issue a report that says that you received and analyzed an extract, we can all assume that what happened is that a tube was sent to Sorenson?
- A. Yes. Yes.

- Q. And we, in fact, have pictures, you typically take a picture?
- A. Back then, I believe in 2008 when we did the original testing, we were taking pictures, yes.
- Q. And so you would have a nice color picture of the envelope in which the tube, small vial was contained?
- A. Probably, yes.
 - Q. And then you would show somebody having opened it and looked inside and then there is the little tube?
- A. Yes.
- Q. And your records indicate that you received one of those tubes with respect to the north doorknob?
- 25 A. Yes.

- Q. And that had been tested sometime in the past?
- A. Yes.

2

3

4

5

6

7

8

14

15

- Q. And then in 2010, in February, you received an extract again?
- A. Again, let me see here. I don't know if we received it again or if we still had it. I'm not sure. It looks like we did receive it again from the Arizona DPS.
- 9 Q. And so when you received it again you discovered 10 that it was empty?
- 11 A. Yes.
- Q. And it was empty because the last time you had the extract it had been consumed?
 - A. I don't know if we consumed or it was tested in-between, I'm not sure. But, yes, at some point during the testing it was consumed.
- Q. So sometime before it got back to Sorenson in February of 2010 it had been consumed?
- 19 A. Yes.
- Q. Okay. Did you also receive, let me ask you again, did you also receive a swab?
- 22 A. Of the doorknob, yes.
- 23 0. Yes?
- A. It appears that we did.
- Q. And it appears that you received that in February

of 2010?

- A. Yes, it does.
- Q. When Captain Rhodes brought other material up to you?
 - A. Yes.
- Q. And the swab is actually, and the jury have seen these, they're -- why don't you describe what the swab is so that we have it clearly on the record.
- A. I don't know. The serologist didn't look at that particular swab. So other than saying it is a swab I don't know exactly what it looked like.
- Q. So, generally speaking, when you think about, you said you knew something about DNA on doorknobs, when somebody says a swab of a doorknob, what do you think of?
- A. I think of either one swab or multiple swabs taken of the doorknob.
 - Q. They look like some of these Q-tips like things that we've seen in court?
- A. It would be a one ended Q-tip with a very long
 tip, if you will, that is ordinarily what the swabs look
 like.
 - Q. So when your records indicate that you received a swab in 2010, that was brought up by the Yavapai County Sheriff's Office, you would assume that there was an

envelope somewhere with a little one ended Q-tip in it?

- A. At least one, I would assume, yes.
- Q. Could have been more than one, but there would have been at least one?
- A. Yes.

1

2

3

4

5

6

7

8

- Q. And your records tell us only that it was never tested?
 - A. That's correct.
- Q. And you can't tell us why?
- 10 A. No. I don't know if it was a miscommunication.
- 11 I don't know if our serologist didn't understand that
- 12 she was supposed to test the extract and the swab or it
- 13 was decided at a later point just to test the extract.
- 14 | I'm not really sure. As you said before, I wasn't a
- 15 | part of that testing process.
- 16 Q. But in any event, at least in 2010, you were not
- 17 | able to do any meaningful analysis of anything related
- 18 to that doorknob?
- A. We didn't do it in 2010. We did do some testing
- 20 in 2008.
- 21 Q. Okay. But nothing when this, when the swab and
- 22 the extract were sent back for the reasons you've
- 23 | already told us?
- 24 A. Right.
- 25 Q. Let's talk now about the --

- A. Oh, I'm sorry. I do have a note here. I apologize. I completely glanced over this. According to the information that we have here, and, again, this is a case note that's written by our evidence custodian on the date that we received the extract from the Arizona Department of Public Safety. There is a note that says Item 805 was consumed.
 - Q. Item 805 being the --
 - A. The swab.

- Q. Are you sure it is the swab and not the doorknob itself?
- A. She has got extract 1417 is from Item 805. Item 805 was consumed is the specific note. I would read that to mean that the swab was consumed.
- Q. So does that mean that the swab was not brought back to you?
- A. We may have gotten a package with a stick in it where the swab was consumed. It is not common practice to throw away evidence in our industry. We even keep them even if the item has been consumed.
- Q. Let's think about that for a moment. The note that you are referring to is the case note?
 - A. This is a different one dated March 31st.
- Q. Let me see that one.
 - A. This is a list of the extracts that we obtained

from the Arizona Department Of Public Safety.

- Q. And what you're looking at is the line that says extracts for two items and one of those is from 805?
 - A. Uh-huh.
 - Q. And it says Item 805 was consumed?
- A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

18

19

20

21

23

24

25

- Q. So if that was true on the 31st of March, why would somebody be sending you a swab back, specifically Captain Rhodes, in February of 2010?
- A. He may not have had knowledge that it was consumed. I don't know. You would have to ask him.
- Q. So that could be the issue, he just may not have known that it had already been consumed?
 - A. That's correct.
- Q. Just like he might have not known that the extracts had already been consumed?
- 17 A. That's true.
 - Q. Okay. I'm just going to spend a minute on this next one, on the washer hose. I think you've already told us all we need to know about this. In, in your book it is Item 406, 426?
- 22 A. 426, yes.
 - Q. And you told us that item was also brought to your lab by Captain Rhodes and that it was never tested?
 - A. It was -- well, the extract of that item, again,

was tested back in 2008. It was not tested in 2010.

- Q. And I think you said on direct examination that somebody opened the item up and looked at it and --
 - A. Yes.

- Q. -- and determined that it wasn't suitable for further testing?
- A. Not that it wasn't suitable, but extremely cumbersome to test and I don't know the conversations that took place, but according to the notes and their desired results or their question that they want answered from this item is that it appears that we already did the testing to answer that question. Again, unless they were just desiring us to take new swabbings of it.
- Q. And you don't know what the conversations were that led to the decision that they were not going to do any further testing?
 - A. No, I don't.
- Q. And you understand that the purpose for seizing the washer hose and cutting it up was the possibility of finding the victim's DNA?
 - A. Yes. That's my understanding.
- Q. Let's move on now to the fingernails. The next item that you reported on and spent time on here is what we've now called many times Item 603?

A. Yes.

- Q. From the left-hand fingernails of the victim?
- A. Yes.
- Q. Correct? And with respect to that, again, you were not involved at all in the serology portion?
 - A. That's correct.
- Q. You know that serology, that is the scraping of the fingernails was done by someone who works for you?
 - A. The swabbing, yes.
- Q. And that Nora Wooden introduced earlier was there to observe that?
- A. I wasn't aware exactly what parts of the testing she was watching, but I did note that she was supposed to be watching certain parts of the testing.
- Q. And did you know that she was there pursuant to a court order with respect to the consumption of these fingernails?
- A. I wasn't sure exactly why she was observing. I did know that she was, that it was, that it was an agreement made upon in the court in order for Sorenson to do the testing, that there be a representative from there from the defense. But as far as the reason why there had to be a representative there, that I was not privy to.
 - Q. So you didn't know that it had anything to do

```
1
    with the possibility that the additional serology, the
 2
    additional taking of material from those fingernails
 3
    might consume?
 4
            I didn't know it was because of the consumption,
 5
    no.
 6
            In any event, the additional swabbing was done of
 7
    the fingernails of the left hand?
 8
       Α.
           Yes.
 9
           And the processes that you've told us about this
10
    morning occurred with respect to the wet lab process?
11
       Α.
           Yes.
12
       Q.
           And resulted in a DNA sample that could be
13
    subjected to DNA analysis?
14
       Α.
           Yes.
15
           And this particular analysis was what you call
    Y-STR?
16
17
       Α.
           That's correct.
18
       Q.
           And, again, as you told us you were looking for
19
    the presence of male DNA?
20
       Α.
           That's correct.
```

- Q. And you told us that you found one major contributor?
- 23 A. Yes.
- Q. And we know that it was not Steven DeMocker?
- 25 A. That's correct.

- Q. And it was not James Knapp?
- A. That's correct.

- Q. Let's talk for just a minute while we're on the major contributor about what can be done with complete profiles. You said a couple times that a complete STR profile could be submitted to CODIS?
 - A. That's correct.
- Q. Do you know how many points of reference you have to have, how many alleles and how many loci you have to have in order to submit a profile to CODIS?
- A. It varies state by state. As far as uploading into the national database they have, what they require, ten loci, and then they have what is called the 4 X 4 rules which indicates you can have up to four of those loci contain up to four alleles but that the remaining six must contain alleles called obligating alleles, meaning they are known to have come from the presumed source of the profile.
- Q. Do you know that the STR profile initially obtained by DPS was submitted to CODIS?
 - A. Yes. I did see that in my notes.
- Q. Okay. So you understood that there had already been a relatively complete STR profile done before the fingernails ever came to you?
 - A. That's my understanding, yes.

- Q. Okay. And did you also have an understanding of how the fingernails had been swabbed previously?
- A. I actually, before coming here, did look in my notes to see if there was any indication of how the sample was taken and I did not find any indication.
- Q. So you would not have known, if it turns out to be the case with other witnesses, that half of each fingernail of the left hand was swabbed?
 - A. I have no knowledge of how they swabbed it, no.
- Q. But you do have knowledge from your review of the reports of how the swabbing was done this time?
- A. Yes. We did our swabbing at our company, yes.
- Q. And the way you did it was to swab the complete fingernail?
- A. The complete underside of the fingernail, yes.
- Q. What you call the concave --
- 17 A. Yes.

2

3

4

5

6

7

8

9

10

11

12

21

- 18 Q. -- portion of the fingernail? And that resulted 19 in a what you call a Y-STR profile?
- 20 A. Yes.
 - Q. And it was a complete profile?
- A. I believe, I don't believe we actually identified the major alleles, but if I look at it I could tell you if I identified it. Let me see if I put it in my report.

- Q. Maybe we can talk about that for a minute.
- A. Okay.

- Q. Your profile, when I say complete, what I think of is that at all of these locations that you talked to us about yesterday you said there were 16 --
- A. Uh-huh.
- Q. -- locations, if there was evidence of DNA at every one of those locations?
 - A. Yes.
- Q. So that is what I have in mind when I say it is a complete profile.
 - A. Can I tell you what I have in mind when I say a complete profile?
 - Q. Absolutely.
 - A. When we're talking about major and minors, you have to go locus, bi-locus or for each of the 16 places on the DNA you have to see if you can pull out a major donor. You can't always do it in every location. If I were to say a complete major profile, that means I would have to be able to declare a major donor at every one of those 16 sites.
 - Q. And did do you that?
 - A. I didn't call it complete in my report. I just said that the profile was obtained, a major profile was obtained, because we didn't at the time pull out which

alleles were the major donor because we didn't have, we didn't have a need to.

- Q. And that's worth spending a minute on. You said on direct, and you may have said it on cross today, that you did compare the major donor --
 - A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

- Q. -- with Steve DeMocker, with James Knapp. Did you ever write out in your analysis and the tables that you've done what that major profile is?
 - A. No. We did not.
- Q. And why is that?
- Α. Well, with our laboratory ordinarily, if we obtain an unknown profile, like we did in this case, one of two things is going to happen. Either at a future date we'll obtain a reference sample that will match that major donor, in which case we have to do statistics, and then we need to indicate what the major profile is to show what we did statistics on, or that profile is going to get uploaded into CODIS and the state administrator, at whatever lab gets that profile, will want to independently determine what the major profile is. So, in either situation, when we have an unknown profile that doesn't match anyone, there is no need for us to mark and indicate what the major profile is.

- Q. Does it not concern you at all, as the person who drafted the reports, that your reports say in several places that you identified a major profile?
 - A. No. It doesn't concern me.
- Q. So you would expect that readers might know that, even though you say you have a major profile you haven't called it a complete major profile?
- A. It could have been an oversight on my part, not putting the term complete; but, again, I was not making that marking, that distinction at the time. So, no, it doesn't concern me.
- Q. So when you get around to doing comparisons between the, what you call the major donor, don't you have to at least, in your, in eyeballing your results, figure out what the major profile is?
 - A. Yes. I did do that with the graphs.
 - Q. But you didn't do it in a summary?
- A. That's correct.
- 19 Q. In the summary form that you developed you simply 20 list all of the alleles you found at every loci?
 - A. That's correct.
- Q. But you also had an electropherogram, you call them a graph?
- 24 A. Yes.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

21

Q. But they're, really the technical term is

```
1
    electropherogram?
 2
        Α.
            Yes.
 3
            And that electropherogram was a printout or a
 4
    readout?
 5
       Α.
            Yes.
 6
            Of what your computer found to be the precise
 7
    alleles at each of those 16 locations?
 8
       Α.
            Yes.
 9
            And so you could sit at your desk and go through
10
    that document, that electropherogram; correct?
11
       Α.
            Yes.
12
       Q.
           And you did?
13
       Α.
           Uh-huh.
                     Yes.
14
           And based upon that you determined what you
15
    believed the major profile to be?
16
       Α.
           Yes.
                  I've identified that there is definitely a
17
    major profile.
18
           And you identified, at least to your own
19
    satisfaction, what the major profile looked like at
20
    every location?
21
       Α.
           Yes.
```

- 22 Q. But you didn't write it down in a separate table?
- 23 A. Correct.
- Q. Because that's the Sorenson policy?
- 25 A. Because it wasn't necessary at the time. You

have to understand that there can be debates between the analysts and the technical reviewer over, "Well, you shouldn't have called the major profile at this locus, but you should have it at this locus." You can get into semantics with that if we need to do that to generate statistics and make sure that we agree and make sure it is proper and appropriate for the statistical comparison. There is no statistical comparison, there is no point in going through that exercise. I may think there is a 14-major Y-STR profile, you may think it is only a 12 locus DNA profile, but you can exclude the person either way. It's, there's not going to be that much difference.

- Q. Well, it becomes a little bit problematic, doesn't it, when you move from the major profile to the minor ones?
- A. Not really because when you are excluding someone from the minor profile you are essentially excluding them from the entire mixture because there can be overlap with the major profile. So if your reference sample has a peak that is in the major DNA profile, you still cannot exclude them from the minor because there can be DNA overlap.
- Q. So when you write a report and say that someone can be excluded from the minor, you have found that

- 1 there is no -- well, let me ask it differently. 2 you say in your report that you can exclude someone as a minor contributor, as you ultimately did with Steve DeMocker, what analysis did you have to go through if you didn't derive a major profile?
 - It would be the same process whether we have a major or not. If you're trying to exclude someone from a mixture, it's the same process. Excluding someone from a mixture with no major is the same process as excluding someone from a minor component.
 - Q. And has it occurred to you now, since April of this year, that there might have been some slippage in your analysis of the profile because of the way you approached it?
- 15 Α. No.

4

5

6

7

8

9

10

11

12

13

14

16

17

19

20

21

22

- 0. You remember that when we were together we spent a good long time looking at your electropherogram?
- 18 Α. Yes. I recall.
 - Q. I don't know how much elapsed time it was, but it was about 20 pages in the transcript?
 - Α. Okay.
 - Q. And you remember that we went down with you through your summary profile sheet?
- 24 Α. Yes.
- 25 Q. Location by location?

A. Yes. I recall.

- Q. Asking you to compare Steve DeMocker to James Knapp?
 - A. I don't recall comparing two reference samples.
- Q. Not at the same time, but don't you remember that we went through why you said you could exclude James Knapp, but could not exclude Steve DeMocker?
- A. You stated that we compared James Knapp to Steve DeMocker and I don't recall doing that.
- Q. You were actually talking about both of them in about the same 10 or 15, 20 minute period?
- A. You mean in comparison to the fingernail swabbing?
- Q. Absolutely.
 - A. That is not what you said. You had them comparing to each other.
 - Q. Of course not. If I said that, forget it. What you were doing was going through the whole profile?
 - A. Right.
 - Q. And telling us why you were confident that you could exclude James Knapp?
 - A. I don't recall using those words. I told you that I needed to look at my data explaining the process and then we broke for the evening. I looked at my data, you wanted to get together the next day to discuss

further issues, and I told you that I was going to be submitting an amended report because I found the transposition error.

- Q. Do you recall in the session that we had on the first day going down location by location and having you look at the 603 DNA profile and explaining to us why it was that you had concluded in your report that you could not exclude Steven DeMocker?
- A. I recall doing that and I also recall telling you at this particular locus I would have to go look at my data because there is a star here and I don't know what the star stands for us when we see peaks that might be present to your detection threshold. We put a star to indicate they are present on the graph printouts. They don't always show up. We do a zoom-in in our software to see what those peaks are.

In this case, that was the situation. I couldn't clearly see what the stars were representing, so I couldn't explain all the loci. I explain as many as I could, but I wasn't able to explain all of them. I told you I would look at that and provide you with a printout of the blow up and go over it the next day, and we did.

Q. And indeed it was that experience, that time that you spent with Ann Chapman and with me that caused you to go back and reexamine your findings?

- A. To reexamine the data, yes.
- Q. To reexamine the data, and you will probably never know the answer to the question what would have happened had we not spent that time?

MR. PAUPORE: Objection. Calls for speculation.

THE COURT: Overruled. You may answer it if you can.

9 THE WITNESS: I don't know what would have 10 happened.

- Q. (Continued by MR. HAMMOND:) Let's talk about what you typically do. If you, if you write a report as you've told us, that report goes through a technical review; correct?
- 15 A. Correct.

1

2

3

4

7

8

11

12

13

14

18

19

- 16 Q. And it happened here? It had happened here?
- 17 A. Yes. It went through a technical review.
 - Q. There was a technical review, there was also what you call an administrative review --
- 20 A. Yes.
- 21 Q. -- by a woman named Denise Anderson?
- 22 A. She performed the technical review.
- Q. And Mr. Hellwig did the administrative?
- 24 A. Yes.
- 25 Q. So those things were done and the report was

issued?

- A. Yes.
- Q. In the ordinary course, when you issue a report, there is no further review?
- A. I do review it. Again, if it's going to go to court, I will take the case out, re-review the data, refresh my memory, and make sure that I can explain to the jury the findings I look at it.
- Q. Precisely. So what in the ordinary course would have happened had it not been for the conversation that you had with Ms. Chapman and me? You would have put that report away and in the ordinary course you would not have looked at it until you were preparing to come here and talk to this jury?
 - A. That's true.
- MR. HAMMOND: Your Honor, I think this might be a good time to break.
- THE COURT: We will take the afternoon recess. Ladies and gentlemen, please remember the admonition, of course, and please be back in the jury room by ten after 3:00. Thank you.
- (Whereupon, a recess is had from 2:49 p.m. to 3:12 p.m.)
- THE COURT: The record will show the presence of the defendant, all the attorneys, the

jurors, and the witness has returned to the witness stand. Mr. Hammond?

- Q. (Continued by MR. HAMMOND:) Thank you, Your Honor. We were talking about the left-hand fingernails before we broke. Since you weren't involved in the swabbing itself, do you have any way of knowing how many different fingernails DNA was found under on the left hand?
 - A. No. I do not.

- Q. Did you ever do any examination of your own to determine whether there was a way today for you to tell how many fingernails the DNA was under?
- A. I can tell you how many fingernails we swabbed.

 As far as which ones contained DNA, I can't tell you

 that.
 - Q. We have all the photographs and it looks like there are six pieces of fingernails that came up to you and I assume all of them were swabbed?
 - A. I would have to look at the notes. Would you like me to confirm?
 - Q. Unless I, you can, if you have some doubt that they were all swabbed?
- A. Well, you say six and we normally separate by hand. I do believe there was a note about one being broken into two pieces, so yes that make six.

- Q. So on the left hand for some reason there were six pieces of nail?
 - A. Correct.
- Q. Dr. Keen, when he was here, acknowledged that there were for some reason six pieces?
 - A. Yes.

6

7

8

- Q. You would assume that even though you were not there, but the protocol and all your notes suggest that all those fingernails were swabbed?
- 10 A. Yes.
- 11 Q. Swabbed in a single process?
- 12 A. Yes.
- Q. That is, if we look at your envelope with the swabs in it there would not be six swabs?
- 15 A. Correct.
- 16 Q. There is almost most certainly one?
- A. I believe there were two swabs, the wet swab and the dry swab.
- 19 Q. Excuse me, always the wet swab and the dry swab, 20 but essentially one swabbing process?
- 21 A. Correct.
- Q. Done on the underside of those nails?
- 23 A. That's correct.
- Q. And you did tell us that there was a significant amount of DNA?

- A. Significant enough to obtain a profile, yes.
- Q. And to have a profile that you could do all of the work that we've talked about in the last couple of days?
 - A. That's correct.
 - Q. And you know that the nail had been swabbed before by DPS?
- A. Yes.

2

3

4

5

6

7

8

- 9 Q. And you know that they also obtained a profile 10 sufficient to submit to CODIS as an STR profile?
- 11 A. Yes. That is my understanding.
- 12 Q. Done on the same nails?
- 13 A. Yes.
- Q. Have you heard the quantity of DNA described as fabulous?
- A. I have not heard that, no.
- Q. So you haven't heard anyone in DPS in this case say that that was a fabulous quantity of DNA?
- A. I haven't spoken to anyone in DPS.
- Q. Okay. Fair enough. Did you also do an analysis of the swabbing of the left hand?
- 22 A. Yes.
- Q. We're actually getting down to where we are almost through with this list, but this item is what is in the records of the case has been Item 611.

1 A. Yes.

3

4

5

6

7

8

9

15

16

17

18

- Q. It was evidence Item 611?
 - A. That's correct.
 - Q. And, again, you were not involved in the actual swabbing itself?
 - A. No. I was not.
 - Q. But you did do or attempt to do what you could to develop an STR profile?
 - A. We developed a Y-STR profile.
- 10 Q. I'm sorry, a Y-STR profile?
- 11 A. Yes.
- 12 Q. And you put your conclusions with respect to that 13 in your report; correct?
- 14 A. Yes.
 - Q. Just so we have it, you concluded that the, and this is Exhibit 3226, you concluded that the sample was so complex that you couldn't make any judgments about it? Is that too unartful of a way to put it?
- A. No. It was too complex as well as there being limited information. Both of those were issues.
- Q. And we're looking at this item here that is marked as 10C?
- 23 A. That's correct.
- Q. Okay. So you said, ultimately, that the, due to the limited genetic information, and also due to the

complexity of the mixture, no meaningful comparisons can be made?

A. That's correct.

- Q. Okay. Did you attempt to do any comparison between the left hand and the fingernails of the left hand?
- A. We couldn't make any comparisons with the left hand.
- Q. So you didn't even attempt to take a profile of 603, the Y-STR profile, and look at as much as you could find of the profile of the hand?
- A. It doesn't work that way. If we say that no meaningful comparisons can be made to known samples at all, that means that we can't make any comparisons inclusion or exclusion. We can't make any conclusions, any profile that I would compare to that profile would be an inconclusive result, every single one, every single time.
- Q. Okay. Let me ask you to take a quick look at what we've marked for identification as Exhibit 3244. Can you identify that document for us?
- A. Yes. This is our allele summary table for all the Y-STR results that we obtained, as well as the DNA profile of Steven DeMocker that we obtained from the Arizona Department of Public Safety.

```
1
            And is that a profile that you prepared in the
        Q.
 2
     course of your work prior to drafting the report that
 3
     we've had here this afternoon?
 4
       Α.
            Yes, it is.
 5
                 MR. HAMMOND: Your Honor, I would like to
 6
    move for the admission of Exhibit 3244.
 7
                 THE COURT: Mr. Paupore?
 8
                 MR. PAUPORE: No objection.
 9
                 THE COURT:
                             3244 is admitted.
10
            (Continued by MR. HAMMOND:) Just so we can
11
    understand what you were just saying, would you just
    take a minute and, this is -- let me move this so it
12
13
    takes up the page here. I think this will give you the
14
    ability to, can you see that pretty clearly?
15
       Α.
           Yes.
                 It's all right.
16
       0.
           There. I think it's about as clear as it's going
17
             So what you do, and this is what you call and
18
    what we've referred to it as the Y-STR profile summary?
19
       Α.
           Yes.
20
           Your full name up there is Y-filer?
21
           That's the name of the kit that we use to develop
       Α.
22
    the Y-STR profile.
23
           And this is work you did, you dated it on the
24
    13th of April?
25
       Α.
           That's correct.
```

- Q. And we've got your name and signature on there as you do with every page of your work; right?
 - A. Yes.

2

3

4

5

6

7

8

9

10

- Q. On the left-hand side of this sheet you have listed all 16 of those loci?
- A. That's correct.
 - Q. So these are, when we've been talking over the last couple of days about all of the places along the DNA strand that your equipment looks at, these are the tables for all of those?
- 11 A. That's correct.
- Q. And then across the top you've attempted to organize some of the things that you looked at?
 - A. Yes.
- 15 Q. And by organize, I mean, you've tried to come up
 16 with a table that, and, I'm sorry, but this is not quite
 17 -- let me see. Let me see just so you can read that
 18 part of it. You put on the same table the left-hand
 19 fingernails?
- 20 A. Yes.
- 21 Q. The left-hand swab?
- 22 A. Yes.
- Q. And then the telephone that we've talked about earlier?
- 25 A. Yes.

- Q. And the right-hand fingernails is the only thing we haven't talked about yet?
 - A. Right.
 - Q. And then you also had an extract that you told us about, you talked about on direct examination that you received from DPS?
 - A. Yes.
 - Q. You had that as your next column; correct?
- 9 A. Yes.

4

5

6

7

8

17

18

19

20

21

22

23

- Q. And then you have the reference sample from James
 11 Knapp?
- 12 A. Yes.
- Q. And the DPS summary for Steve DeMocker?
- 14 A. Yes.
- 15 Q. Okay. So you put all of those on the same table 16 for what purpose?
 - A. It's just a summary of the data, a summary of the graphs of what we consider to be the reportable alleles or the reportable information.
 - Q. And, again, as you told us earlier, because of the way your company approaches the Y-STR process, you do not come up with what you identify as a major profile for any of these?
- A. That's correct.
- 25 Q. So, just looking at this document without

studying the electropherogram, we wouldn't be able to figure out which of the various things you find at any location is the major one?

A. That's correct.

- Q. If we looked at your graphs we might be able to do that or some expert in the field?
 - A. An expert would, yes.
- Q. I wouldn't be, but somebody who is an expert would be able to?
- 10 A. That's correct.
 - Q. And when I was asking you before if you had ever compared the swab of the hand of the left hand to the fingernails and you said no, you said no because as you've analyzed this data, this second column here -- and let me back up just a little bit here so you can see the whole thing. There wasn't sufficient data for you to be able to do anything?
 - A. Well, it was a combination of two things. There was insufficient genetic information. As you can tell, the loci that say INC, that's inconclusive, which means they are inconclusive for the DNA. There are conclusions that DNA was there, but not detected, and those stars might be that there is more DNA detected, the lower detection threshold, but we did see that additional DNA was present, that is where the limited

quality comes from. There is also a complexity factor here meaning that of the alleles that were detected they are of such similar height but also low height as to meaning, no meaningful comparisons to no sample.

- Q. And so you've just arrayed the data there, but decided that you could draw no conclusions from it?
 - A. I'm sorry, did you say arrayed?
 - Q. Arrayed, A-R-R-A-Y-E-D, you displayed?
- A. Yes. We do display the information that is detected, as well as any inconclusive information that is detected in this table form just as a summary.
- Q. By the way, you said that as you get ready for trial you go back and review things again to make sure that your conclusions are ones that you are comfortable with?
- A. It is more to be able to explain my conclusions and just refresh my memory on the testing that was performed so I don't have to be digging through my report the entire time and I can go directly to where I know the information is in the case file, to be familiar with the case file.
- Q. And this particular question about whether there was any meaningful analysis that you could do with respect to the left hand and the fingernails, you're comfortable that there just wasn't anything you could

do?

1

2

3

4

5

6

7

8

9

10

11

- A. Yes.
- Q. The last, by the way, did you get or did Sorenson get at any time any swab from the right hand of the victim?
- A. I don't believe so, but let me double-check. It doesn't appear in this part that we received any swabs in that area.
- Q. In any of your communications about this case have you had any ability to gain an understanding of whether there is a swab of the right hand?
- 12 A. No. I have no idea.
- Q. You do know that the right-hand fingernails were swabbed?
- 15 A. Yes.
- Q. And I think you also know that one of those fingernails had been broken and was so noted at the time of the autopsy?
- A. You mean the left hand?
- 20 Q. Right hand.
- A. The right hand. I don't know. I don't have the autopsy report.
- Q. So you didn't know that until I told you right now?
- A. I haven't looked at the serologist report.

```
1
    Sometimes the serologist will note that a fingernail is
 2
    broken in half. I thought they noted that for the left
 3
    hand as to that is why there were six fragments.
                                                        Ι
    would have to look at the notes.
 4
 5
           Can you, I don't think you'll find a note, but if
 6
    you want to take the time.
 7
                 MR. PAUPORE: Your Honor, this question
 8
    assumes facts not in evidence.
 9
                 THE COURT: Overruled. She may answer it if
10
    she can.
11
                 THE WITNESS: According to our notes it just
12
    says five apparent fingernails.
13
            (Continued by MR. HAMMOND:) And you have no
14
    information that one of them had been broken off at the
15
    time, at least observed at the time of the autopsy?
16
       Α.
           No. I have no information about what happened at
17
    the autopsy.
18
           And no information in your notes there with
19
    respect to why Sorenson was not asked to look at any
20
    swabs of that hand?
21
       Α.
                I have no information at all about that.
22
       Q.
           But you also looked, in addition to looking at
23
    the right-hand fingernails, you also obtained an
```

LOTT REPORTING, INC./928.776.1169 —

It does

Let me see if that's correct. Yes.

extract?

Α.

24

appear that we received an extract from the right-hand fingernails.

- Q. And in your list of items that you examined you actually examined both the right-hand fingernails that Sorenson swabbed and the extract?
- A. Yes. It appears we have that as Item 15, extract from 600.
- Q. So you did both and just to make sure that we're finished, this is 600. It is the last item that you looked at and looking at your notes does refresh your memory that you looked both at the fingernail swabbings you did, you, Sorenson did, and at an extract?
- A. Yes.

- Q. Done by DPS?
- A. Yes.
- Q. Did you consider at some time combining those two?
 - A. I'm not aware of -- I'm aware in the notes that there was a request to do that. I don't know if we ever considered doing it. It was up to our, there's two notes here. One note states that the request is that the swabbings and the extracts be combined in order to, let me get the wording right on this.
 - Q. I can help you.
- A. In order to raise the probability of getting a

profile, so that would indicate that perhaps in our swabbing we wouldn't get enough DNA to obtain a profile because, again, as you said before, it had already been tested. And then, there's a later note that states that the amplification decisions would be made by our DNA technical leader, Dan Hellwig, after the quantitation phase that would let us know how much DNA we got from our own swabbing. I don't know what discussion went on. I don't have notes on that, but the ultimate decision was made to keep them separate. I would presume there was enough DNA from our swabbing to not need to combine with the extracts.

- Q. In your report, when you talk about the right-hand fingernails you say that, let me just look at it quickly, this is again 3226 this bottom entry down here, no male DNA was detected, therefore, no further testing was performed?
 - A. Yes. That's correct.
- Q. And then when you looked at the extract of that same item, Item 600, this is page three of your report, you say that the Y-STR analysis was conducted on this item due to the limited genetic information and inconclusive DNA profile was obtained?
- A. That's correct.
 - Q. What did you mean by inconclusive profile?

- Q. And when you determined that the profile provided you with insufficient data, do you know who went back and answered the question about combining them, combining the extract you created with the extract you received from DPS?
 - A. You mean after this testing was performed?
- 11 O. Yes.

- A. This testing would have consumed the extract, so there would be nothing to combine.
- Q. So if you were going to do what you had been, what had been suggested to you at the outset and -- let's back up a second. When you were looking at your case notes, what you were looking at were your notes or your record of the original meeting with Captain Rhodes?
 - A. Yes.
- Q. And in that meeting the recommendation was made or the suggestion was made that swabs and extracts be used to raise the probability?
- A. Of obtaining a profile, yes.
- Q. So at some point then the question is did somebody stop and say, "Well, we've got a low quantity

of DNA from our own swab and we have an extract, should we combine them into a single one?"

- A. We didn't have a low quantity from our swab and we had no male DNA. So, adding that it would be purely female DNA, so there would be no merit to adding that to the extract from the Arizona lab because we're looking for male DNA. We're doing a Y-STR test, which will only detects male DNA. If there is no male DNA in the swabbing that we took it would essentially be the same as adding water to the extract, it would have the same affect, there would be no additional information gained by doing that.
- Q. Did someone give any consideration as to how it was able to be there, had been some amount of male DNA in the DPS extract and not in yours?
 - A. As to how that could happen?
- Q. I'm not asking you today, I'm asking you whether in the process somebody stopped and said, "Well, that's odd"?
- A. It's not odd though because it has already been swabbed by another laboratory. We sort of got the leftovers.
- Q. Well, let's talk about that again. Do you know how the right-hand fingernails were swabbed?
 - A. By the Arizona lab?

Q. And by your lab?

- A. I know how it was swabbed by our lab.
- Q. What if it turned out to be that the right hand was swabbed the same way that the left one was by DPS, by swabbing just one half of each fingernail?
- A. Well, again, the amount of male DNA in the Arizona sample was so low we were only able to get an inconclusive profile. We got hardly any information at all. It could be roughly luck of the draw that those sides of the fingernails contained the DNA.
 - Q. Did somebody analyze that information?
- A. No. We don't make notes that, "Geez, I thought this today and I'm thinking that is why that happened."
 We just put in here notes about decisions that we've made, this is what we're going to do going forward.
- Q. Do you have any evidence there that someone in your lab sat down with anyone at DPS to talk about this question?
 - A. I don't know if they did or not.
 - Q. You certainly didn't?
- A. No. I was not involved with the decisions about the testing at all.
- Q. And as far as you know there really haven't been communications between the Northern Arizona DPS lab and certainly you or the people who worked with you on that

project?

- A. I know there was at least one phone conference that they did have.
- Q. And what came from that conference? I was going to ask you about that.
- A. I don't know the details of that phone call except that we asked them to send us the Reagent Blank and they informed us that Reagent Blank applied to all samples in the case. That was the only information that I was communicated directly that came from that phone call. I don't know what else they discussed.
- Q. So you know there was at least that communication, but you don't know whether there was any communications about combining samples to see if you could find something either with respect to the right hand or with respect to anything else that you had both an extract from DPS and your own swab?
- A. I don't know if there was any communication with DPS regarding that issue.
- Q. Did you talk about trying to do one cross-comparison and we talked about that earlier between the phone and the 603?
- A. Yes.
 - Q. No other cross-comparisons were done by you?
- 25 A. I don't believe so.

- \mathbb{Q} . Okay. No other attempts to see if 603 could be found anywhere else in any of the things that were sent to you?
 - A. No. I don't believe so.

- Q. And at the end of the day then, what your laboratory concluded, at least in lay terms, is that first of all you had found nothing new that might link Steve DeMocker to this crime?
- A. We didn't find any matches with Steve DeMocker other than to the lithium battery of his cell phone.
- Q. And as we've talked about earlier, the one thing that you were sent that should have had Steve DeMocker's DNA was on it was the battery to his telephone?
- A. It's not surprising that he would be on his own cell phone.
- Q. Apart from that, you didn't find anything in any of the analysis that you were involved in that would provide a DNA connection between Steve DeMocker and the evidence that you received?
 - A. No. We didn't find anything else.
- Q. You did find though that 603 was very much there, very much found and in no doubt in your mind there was a profile, whether you call it a complete profile or just a full profile, under the fingernails?
- 25 A. Yes.

```
1
       Q.
           Of the left hand?
 2
       Α.
           Yes.
 3
                MR. HAMMOND:
                               Thank you. May I have just a
 4
    moment, Your Honor?
 5
                             Yes.
                 THE COURT:
 6
                MR. HAMMOND: Thank you very much.
 7
    appreciate you coming all the way down here and being as
8
    patient as we have gone through this complicated
 9
    process.
10
                 THE COURT: Thank you, Mr. Hammond.
                                                       Mr.
11
    Paupore, redirect?
12
                MR. PAUPORE: Yes, Your Honor.
                MR. HAMMOND: Your Honor, I don't know if
13
14
    counsel is still in need of a record to be made on the
15
    matter that we talked about.
16
                THE COURT: I was prepared to come out and
17
    do that, that is why I was surprised the jury was
18
    present.
19
                MR. HAMMOND: Phil left just in time so he
20
    wouldn't have to explain.
                THE COURT: Not blaming anybody.
21
22
                MR. HAMMOND: Neither am I.
23
                THE COURT: I was just puzzled, but I
    thought we were going to be -- I don't know. We'll just
24
25
    have to proceed Mr. Paupore, and get into that and see
```

where it goes.

JUROR #2: We can leave and come back.

REDIRECT EXAMINATION

BY MR. PAUPORE:

- Q. Alexis, taking you back to what Mr. Hammond was talking to you about what you call the wet lab work?
 - A. Yes.
- Q. Do you recall that, do you recall either question and answer now that a large part of the learning process involved in DNA analysis is really contained in the lab wet work?
- A. Yes. In order to be a qualified DNA analyst you need to have a basic understanding of what goes on in the laboratory, even if you are at your desk all day long performing analysis.
- Q. And yet to be qualified to be a DNA analyst you need to know exactly how the process works in order to learn how you got to do that?
- A. I have heard of people who have done it in the past and have learned it in the past and been qualified as a DNA analyst, having learned all of the testing procedures, and then at a later date have gone to just doing nothing but analysis and not performing the wet work anymore, but I have never heard of a DNA analyst being an analyst without doing any of the wet work

before.

- Q. That goes to learning the process? Is that fair to say?
 - A. I think that is fair to say.
- Q. Does that include the serology?
- A. Not always. The serology can be separated into a separate study, if you will.
 - Q. It does include the extraction, quantification, and amplification?
- 10 A. Absolutely.
 - Q. In order to be a qualified DNA analyst you have to actually do that work in order to become proficient in your discipline?
 - A. As far as I know, yes.
 - Q. You are, you have to be, are you requalified every year or recertified every year or is it just the lab that is recertified?
 - A. The laboratory goes through the accreditation process and we do have an audit every year, but the analysts have to go through that proficiency test that I spoke of earlier. We have to do that twice a year.
 - Q. In order for the lab to be accredited, the analysts have to go through a proficiency test, it is part of the accreditation for the lab?
- 25 A. It is.

- Q. I was going to ask you a question or two about the fiber. That is item 605. I understood from your testimony, was there any logical reason that you can think of that you would need to retest an item that was determined by Stephanie Masters to be an apparent fiber?
 - A. No. There was no need to.

- Q. It would be just a waste of time?
- A. As far as I'm concerned, yes.
- Q. Mr. Hammond had asked you quite a few questions about extracts and swabs that are referred to in your exhibit. Let's see, I don't have it -- it's Exhibit 3236 and that would be your April 27th report?

MR. HAMMOND: Excuse me, Your Honor, I think it is probably because my handwriting is hard to read and I apologize for that, but it is actually 3226.

MR. PAUPORE: 3226.

THE COURT: Okay.

- Q. (Continued by MR. PAUPORE:) The question is being asked on Exhibit 3226, which is your April 27th, 2010, report about extracts Sorenson Item 7 and 8 and some swabs. He asked you some specific questions on it, but you had to go back and refer to your file to be able to respond to the questions. Do you recall that?
- 24 A. Yes, I do.
 - Q. Could you have answered his questions without

looking back at earlier reports?

- A. No. I couldn't have.
- Q. You rely on those earlier reports to answer the questions that Mr. Hammond posed to you regarding the extracts and the swabs?
- A. Yes, I did.
 - Q. And one of those items that we talked about was the door handle extract. That would be number 8 on your April 27th, 2010, report?
- 10 A. If that's item 805, then yes.
- 11 Q. That is 805.
- 12 A. Yes.

1

2

3

4

5

6

7

8

- Q. And on your report there was no liquid in that extract tube for item 805, Sorenson 8, extract from 805?
- 15 A. Correct.
- 16 Q. It had been consumed?
- 17 A. Yes.
- Q. Also, Item 13 on your report, which the
 description is the water hose, again, did you have to
 refer back to earlier reports done by Sorenson, not
 yourself, but done by someone else at Sorenson to answer
 his questions?
- A. I don't recall if I had to or not.
- Q. What was your finding on your April 27, 2010, report regarding Item 13?

- A. We did not test it.
 - Q. Did not test it. And the reason, actually, the reason you did not test that, do you remember that?
 - A. Yes.

2

3

4

5

6

7

8

9

- Q. And do you remember what your answer was?
- A. My answer was that it would be very cumbersome to test it and that to my understanding we had already performed the work requested using the extract from the DPS laboratory.
- Q. And did you have to refer back to the earlier report to come up with that answer?
- 12 A. Yes, I did.
- Q. Combining extracts, that was towards the end of
 Mr. Hammond's examination, have you ever combined
 extracts?
- 16 A. On occasion, yes.
- 17 Q. It was not done in this case?
- 18 A. That's correct.
- 19 Q. That was not your decision?
- 20 A. Right.
- Q. Made by your technical leader?
- 22 A. To my understanding, yes.
- Q. Your reports that you were looking back at in order to answer Mr. Hammond's question, what reports were they?

```
1
           Part one and the part two reports. I believe
 2
    that the final versions were dated December 8th,
 3
    December 9th, respectively, of 2008. I'm sorry.
 4
       0.
           2008.
                  All right. Those are actually amended
 5
    reports?
 6
       Α.
           Yes, they are.
 7
                MR. PAUPORE: Phil, if you could pull the
8
    easel up a second?
 9
                 THE BAILIFF:
                               Sure.
10
          (Continued by MR. PAUPORE:) Alexis can you see
       Q.
11
    that --
12
       Α.
           Yes.
13
           -- from your standpoint? Mr. Hammond asked you
14
    about finding a fabulous amount of DNA under Item 603,
15
    left fingernails of Virginia Carol Kennedy?
16
       Α.
           Yes.
17
           And do you recall the quantity of DNA that you
18
    found under the, the amount of DNA found under the
19
    fingernails with regard to female DNA?
20
       Α.
           Yes, I do.
21
           And do you remember what that quantity was?
       Q.
22
       Α.
           It was around 43 nanograms.
23
       Q.
           43 nanograms?
24
       Α.
           Yes.
```

-LOTT REPORTING, INC./928.776.1169 -

Would that be a fabulous amount of DNA?

25

0.

1 A. Yes. It would be.

2

3

4

5

6

7

8

9

14

15

- Q. Do you recall the amount of or quantity of DNA, male DNA, found under those fingernails?
- A. Are you referring to the swabbing that we did or to the Arizona DPS extract of that item.
 - Q. To the swabbing that you did?
 - A. The swabbing that we did we found .2 nanograms approximately.
 - Q. .2 nanograms, is that a fabulous amount?
- 10 A. No. It's not.
- 11 Q. In fact, the threshold for detection is .15
 12 nanograms?
- A. For a full profile, yes.
 - Q. For a full profile. You mentioned the swab from DPS, was there a different quantity of DNA in that swab?
- 16 A. Yes, there was.
- Q. And how did that compare to the quantity of the DNA that you found under 603?
- A. There was much more male DNA in the Arizona extract than under the swabbing that we did.
- Q. Why was that?
- 22 A. I could postulate, but --
- Q. You would have to guess?
- A. I'm sorry?
- 25 Q. You would have to make a guess?

Ιs

1 Α. I would suppose it was because our swabbing came after their swabbing. 0. I see. MR. PAUPORE: Your Honor, I don't believe I have any further questions for Ms. Brown. THE COURT: Thank you, Mr. Paupore. Questions from the jury. I see some hands. There are a number of questions. Let me see how many we have and that will give me an idea of about how long the recess will need to be, at least an estimate. Phil, any more questions? THE BAILIFF: No. THE COURT: I need to review these with the attorney, of course. Ladies and gentlemen, we need to have a recess to do that. Please remember the admonition. Please be ready to come back into court at 4:15, and, Ms. Brown, I ask that you be excused from the courtroom at this time as we review the questions, but you will be back on the stand as soon as we have the review again. So recess and again the parties will remain. Thank you. (Whereupon, a recess is had from 3:57 p.m. to 4:01 p.m. THE COURT: The record will show the

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

-LOTT REPORTING, INC./928.776.1169 -

presence of the defendant and all the attorneys.

1 there any need now to make a record on the sidebar, Mr. 2 Hammond? 3 MR. HAMMOND: I don't believe so. 4 THE COURT: Mr. Paupore? 5 I would like to recover MR. PAUPORE: Yes. 6 exhibits previously marked, Exhibits 3232, 3235. 7 are the earlier reports of Sorenson that the witness 8 said that she reviewed. I'm getting help from my 9 colleagues here, but the exhibits 3232 and 3235 she said 10 that she had parts one and parts two that she had to 11 refer back in her notes to answer the questions that she could not have answered the questions without looking 12 13 back at that information to answer the questions on 14 cross-examination, that certainly makes these reports 15 highly relevant and necessary to complete this witness' 16 testimony. The door was kicked off the hinges by Mr. 17 Hammond on this, on cross-examination on swabs and 18 extracts, and I think that puts it right in play. 19 THE COURT: If you would please put that in 20 very concrete terms for me, exactly how do you think the 21 jury would be misled about that report, I would really 22 like --23 MR. PAUPORE: Not misled. They don't have 24 the reports that she was being cross-examined on to 25 look --

THE COURT: What information would they have in that report that they didn't get from the redirect examination? How would that complete the picture, put it in concrete terms for me, please, Mr. Paupore.

MR. PAUPORE: The reports give the conclusions of what the results were from the testing from the extracts on the, specifically we're talking about the 805 extracts. These reports from the conclusions in them and she was relying on to answer his questions and she did not have the conclusions in her report because she looked back and said that they were already tested. The already tested reports already have the conclusion and his so she didn't have to do that.

THE COURT: Mr. Hammond?

MR. HAMMOND: I think this is very simple,
Your Honor. This is what Melendez-Diaz was all about
and the court in that case I think made pretty clear in
a case decided in June of last year that something can
be a business record and as a business record it may or
may not get around the hearsay rule. Whether it does or
not I think for this purpose is immaterial, but a
witness may very well look at something to help them
understand what the background is necessary for them to
address an issue, but if they're going to put in a
report to prove the truth of the matter stated in the

report, then we're entitled under the sixth amendment to confront that witness and that is precisely what the Supreme Court said. It doesn't matter that it's a document that was maintained in the regular course of business, it doesn't matter that it's in her file today.

witness testify about those conclusions for the truth of the matter stated we are entitled to confront the person who did the work and that person is available. I've interviewed him. They could bring him over here and they could get in those reports through him, but we have a right to cross-examine the person that knows the background of those reports. She doesn't know and she said that she wasn't involved at all at the time those reports were done. So, it seems to me it is a pretty simple matter.

THE COURT: Mr. Paupore?

MR. PAUPORE: Your Honor, she was asked specific questions not only about the doorknob, but the washer hose and she needed to look at those reports to give the answers. Now, had he not asked the questions we wouldn't be here talking about it, but that makes it relevant. Those reports were brought in through cross-examination, not direct examination. After we had an objection placed during direct examination when I was

```
1
    trying to get those reports in and it was and the
2
    objection was sustained. This is a whole different
3
    matter now. She was cross-examined on her report and
    she needed the information from the earlier reports to
4
5
    answer the question. That would satisfy the right of
6
    confrontation because Mr. Hammond did cross-examine her.
7
    It was his choice to do it.
8
                THE COURT: So you're making an opening the
9
    door kind of argument, I guess?
10
                MR. PAUPORE: That is what he did.
11
    brought the issue into place.
12
                THE COURT: Because I'm not hearing specific
13
    rules of evidence and this is why this needs to come in,
14
    it is still hearsay, but are you saying that Mr. Hammond
15
    had her consult hearsay, you didn't object to him
    consulting -- I'm sorry, you didn't object to her
16
17
    consulting the hearsay?
                              No.
                                    I did not.
                                                     I did
18
                MR. PAUPORE:
                                                No.
19
          We established earlier that it was a business
20
    record and not hearsay from that standpoint.
21
                THE COURT: The business records are
22
    exceptions to the hearsay rule. It is hearsay.
    Business records are hearsay, but it is an exception.
23
    You can look at the common law as to why business
24
25
    records originally came in.
```

MR. PAUPORE: There is the reliability here that she had to look back at those reports to answer his question and she couldn't have answered the question on redirect without looking at those records. So not only is it made reliable by both cross and redirect, it also made them relevant and I would refer to Rule 703.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

I don't have any problem with THE COURT: the idea that these reports are relevant. It seems to me that the cross-examination had to do with what was done, how thorough was the process, those type of questions. She referred to the reports and answered the questions. Why that would then make all the reports admissible under 703 I don't understand because 703 has to do with an expert relying on information, which may not be an admissible form, and then the court has to decide whether in the interest of justice that the background information should come in. She answered the questions, she's testified. At this time I'm going to sustain. They're now being offered and you're objecting?

MR. HAMMOND: Yes. I am, Your Honor.

THE COURT: For those grounds, if someone has some law on this any more than what I've heard, that can be presented, Mr. Paupore. Do you have some argument, but it seems to me you are making an opening

```
1
    the door type of argument, you didn't -- I'd have to
 2
    think back. I may have to look at part of the record on
 3
    that, but we need to go over the jury questions.
 4
    this time I sustain the objections. There's a tender
 5
    with some legal argument, obviously, about that.
 6
                 Part one:
                            When your lab processes something
 7
    like fingernail clippings, are they able to detect
 8
    chemical compounds other than DNA, such as those from a
 9
    Tyvek T-Y-V-A-C suit?
10
                MR. PAUPORE: No, objection Your Honor.
11
                THE COURT: Mr. Hammond?
12
                MR. HAMMOND: I didn't say anything.
                                                       Νo
13
    objection.
14
                THE COURT:
                             Is that the reference to the
15
    suit?
16
                MR. PAUPORE:
                               It is the bunny suit that Mr.
17
    Sears has.
18
                THE COURT:
                            That is the name of the comment
19
    that was being referred to during cross-examination, but
20
    Tyvek, is that the way it is said?
21
                MR. SEARS:
                            I think it is T-Y-V-E-K.
22
                THE COURT:
                            Okay. Part two: How long time
23
    wise can DNA be detected on an item? Any objection, Mr.
24
    Paupore?
25
                MR. PAUPORE:
                              No, Your Honor.
```

1 THE COURT: Mr. Hammond? 2 MR. HAMMOND: No. 3 Okay. Both of these will be THE COURT: Part three: 4 asked. In a touch DNA will a rough surface 5 like on a pistol grip get more or is more likely to 6 obtain more DNA cells versus a smooth metal surface like 7 a grocery cart? Any objection? 8 MR. PAUPORE: None from the state. 9 THE COURT: Mr. Hammond? 10 MR. HAMMOND: I don't think it is all 11 relevant, so I will object. 12 THE COURT: You know, there was testimony 13 just in general about transfer on guns. I'm going to 14 allow this question. 15 MR. HAMMOND: Okay. 16 THE COURT: Part four: Referring back to 17 testimony regarding Item 408, the lithium battery, the 18 term allele was used. Clarify what the word allele 19 means in DNA analysis. I would like you to spell it if 20 people don't object. I assume there is no objection to 21 that question? 22 MR. PAUPORE: No objection. 23 MR. HAMMOND: No. 24 THE COURT: I'm going to start off by asking 25 you to spell that term. Five: Do you have any programs

```
1
    databases that you can run these DNA STR profiles
 2
    through to find a match? If so, why do a Y-STR if it
 3
    cannot be run?
 4
                There was testimony along those lines she
 5
    did talk about that, but any objection, Mr. Paupore?
 6
                MR. PAUPORE: No, Your Honor.
 7
                THE COURT: Mr. Hammond?
 8
                MR. HAMMOND: I think she'll have a hard
 9
    time understanding it, but I have no objection.
10
                             I'll give it a try. Part six:
                THE COURT:
11
    Could these nanogram amounts, I think that is the
12
    reference up there, could these nanograms amounts found
13
    in Sorenson Number 10B, Agency Item 603, come from
14
    fingernail clippers that weren't sterilized?
15
                MR. PAUPORE: No objection.
16
                MR. HAMMOND: No foundation at all.
                                                      I do
17
    object if this is what we were spending time trying to
18
    keep out of evidence this morning.
19
                THE COURT:
                            I'm aware of that.
                                                 Yeah.
                                                        There
20
    is just not foundation at that level. She didn't have
21
    an opinion in that area.
                               No.
22
                When you give long report numbers can you
23
    repeat them two times, please? No.
                                          I'm not going to
24
    ask that at this point, but if there happens to be
25
    reference to a report number and there are questions we
```

```
1
    can try to cover that.
2
                               Your Honor, I think when the
                MR. PAUPORE:
 3
    witness ran off the T-number for their case number she
 4
    did it pretty darn quick. Next time I will ask her to
 5
    do it when it comes up again.
 6
                THE COURT: I'm not planning on asking that,
7
    Mr. Paupore.
8
                MR. PAUPORE: That's fine.
9
                THE COURT: Did you receive any swabs from
10
    Carol Kennedy's face for transfer material detection?
11
    Any objection?
12
                MR. PAUPORE:
                               No.
13
                              The answer is no, but I'm not
                MR. HAMMOND:
14
    sure this is sort of the amateur detective question.
15
    The answer is no, but I have no idea what inferences a
16
    juror will draw from that.
17
                MR. PAUPORE: I think it is a yes or no.
18
                THE COURT: She's gone through everything
19
    that is analyzed a number of times. You know, I don't
20
    know how that could have been left out; don't you?
21
                MR. HAMMOND: I might have -- no, there
22
    isn't any.
23
                THE COURT: Is there any reason to ask that,
24
    Mr. Paupore, that question?
                MR. PAUPORE: We can answer the question,
25
```

```
but I think the answer is going to be no, but inquiring
1
 2
    minds.
 3
                THE COURT: Again, if she's testified a lot
 4
    regarding things that are not within her personal
 5
    knowledge, if it has to be based on her information, it
    would only be secondhand. Do you object to this
 6
 7
    question?
                               I do on the ground I stated.
 8
                MR. HAMMOND:
 9
    I think it just leads to further speculation.
10
    answer is she didn't receive anything.
11
                            That's the real problem at this
                THE COURT:
                                                        She
12
    point, that there's an objection to the question.
13
    doesn't have knowledge of that. She has what something
14
    is said on a piece of paper.
                MR. PAUPORE: I think it goes back to a
15
    juror has a question in his or her mind and it's, I
16
    think this witness can answer the question.
17
18
                THE COURT: You're saying she does have
19
    personal knowledge exactly what was received other than
20
    what she gets --
21
                               She has --
                MR. PAUPORE:
22
                THE COURT: These items have labels on them,
23
    whether they come in an envelope or a tube, that is how
    she gets them. How does she know where they actually
24
25
                She wasn't there for collection.
    came from?
```

1 MR. PAUPORE: A lot of the, every one of the 2 items have a description, the phone, the handset phone, 3 and the fingernails, they're all labeled. 4 THE COURT: Well, then if there's a question 5 were any of the items, do any of the items contain the 6 label indicating this, then that question can be asked, 7 that is something she could testify about and not to 8 take it any further. Mr. Paupore, if you want to ask 9 that question you can. It has to be in that format, the 10 type of labeling concerning the labeling that she knows 11 about. 12 MR. PAUPORE: The question would be do you 13 receive any samples that were labeled as swabs from 14 Carol Kennedy's face? 15 THE COURT: Right. When you find Four: 16 multiple people's DNA, like 603 and 605, why can't you 17 add more amplifier to give you more to look at? 18 MR. PAUPORE: That's a good question that 19 neither Mr. Hammond or I thought of. I would have no 20 objection. 21 Any objection? THE COURT: 22 MR. HAMMOND: No. 23 Part five. Would fingerprint THE COURT: 24 dust prevent or interfere with collecting or processing 25 a touch DNA sample like, i.e., like a door handle?

objection, Mr. Paupore? 1 2 MR. PAUPORE: No. 3 MR. HAMMOND: That is another foundation I don't think she has any foundation to answer 4 one. 5 that one. 6 MR. PAUPORE: It would have to do with the 7 quality of the DNA sample. I think she can. That is a 8 complicated topic whether you do the DNA swabbing first 9 or the fingerprinting first and whether the dust 10 interferes. There are so many parts to that and we may 11 get into that with the DPS people, but she has no 12 foundation. 13 THE COURT: She did testify that she read 14 and tried to keep up with collection techniques. 15 recall testimony to that affect. Mr. Hammond, don't 16 you? 1.7 MR. HAMMOND: Yes. THE COURT: Okay. But I don't think she 1.8 19 talked about whether dust from the fingerprinting 20 process would have any affect on it. She talked about 21 collection techniques and you can certainly follow up on 22 that, but I'm going to ask number five. 23 MR. HAMMOND: By the way, on this doorknob there's no testimony that any fingerprinting was ever 24 25 done.

1 MR. PAUPORE: It was done by Aaron Daniel. 2 MR. HAMMOND: Not on this doorknob. 3 testified about doing the handle on the back door. 4 There isn't a shred of testimony about anyone doing any 5 testimony, any dusting on the door that goes to the 6 north side. 7 THE COURT: That is certainly appropriate 8 follow up. Here is something else I want to do. I know 9 it has not been the process in this case and I mentioned 10 it when we started out, I'm going to ask a follow up at 11 the end of each question or at least gage if they're 12 related. I think there can be more focus if we do it 13 that way rather than a long train of questions. 14 to do it in these questions; that is, a particular 15 question where follow up is absolutely appropriate and I 16 think it should be set off in a manner where it is not 17 mixed in with other things. 18 MR. HAMMOND: Judge, could we go back to 19 that bunny suit kind of thing. I think we were amused 20 by the question. 21 THE COURT: I wasn't really amused by it. 22 want to make sure it --23 MR. HAMMOND: I don't think it is an 24

-LOTT REPORTING, INC./928.776.1169

that anybody was wearing a Tyvek bunny suit.

25

appropriate question. There really is no evidence here

```
remember that was part of the cross-examination of
1
2
    Officer Juantes when he was speculating about how it was
 3
    possible that Steve DeMocker had no DNA on him and Mr.
    Sears said, "Well, if he was wearing a Tyvek bunny
 4
 5
    suit." I can't imagine anyone who committed this crime
 6
    was wearing one of those suits, so I don't think it
7
    ought to be asked.
                MR. PAUPORE: Your Honor, it was the defense
8
9
    who brought up the Tyvek suit, too.
10
                THE COURT: Once again, this can be
11
    clarified through some follow up. It is part of the
12
           There will be a juror just wondering and I don't
    case.
13
    know what that means. I don't want to speculate as to
14
           The question can be asked and clarified with
    that.
15
    follow up if need be. Seven. Part one; can you
16
    determine which DNA goes with which if you get a swab
17
    with more than one person's DNA? Any objection?
18
                MR. PAUPORE: No objection.
19
                THE COURT: Mr. Hammond?
20
                MR. HAMMOND:
                              No.
21
                                   Part one will be asked.
                THE COURT: Okay.
22
               When you break down the cells to get the DNA,
    Part two:
23
    does it break down the double helix as well?
                MR. PAUPORE: No objection.
24
25
                              No objection.
                MR. HAMMOND:
```

```
1
                THE COURT:
                             How can you tell if something is
 2
    true DNA or not or animal versus human DNA; i.e., a dog?
 3
    Any objection, Mr. Paupore?
 4
                MR. PAUPORE:
                               No.
 5
                THE COURT: Mr. Hammond?
 6
                MR. HAMMOND:
                               No.
7
                THE COURT: Okay.
                                    Part three will be asked.
8
    Did you get a full DNA profile from 603, your number
9
    10B, Y-STR?
                Any objection?
10
                MR. PAUPORE: No.
                                    I don't believe there is
11
    a question on it, but no objection.
12
                MR. HAMMOND: No objection.
13
                THE COURT: Part four will be asked.
14
    Where on Carol's hand did item 611, your 10C come from?
15
    Fingernails or somewhere else on hand? Mr. Paupore?
16
                MR. PAUPORE:
                               No objection.
17
                               She won't know, but I don't
                MR. HAMMOND:
18
    know whether she wasn't involved in the collection and I
19
    guess I didn't make that clear enough. Maybe I ought to
20
    have her say again she wasn't involved in the
21
    collection.
22
                THE COURT:
                            And I will ask part five.
23
    Question was handed right there at the end numbered A.
24
    I don't think you have numbers on yours. I call it A.
25
            In the right hand can you tell the type of
    It is:
```

```
2
    cells, saliva? Any objection?
 3
                MR. PAUPORE: No objection.
 4
                MR. HAMMOND:
                              I think she answered that, but
 5
    no.
 6
                MR. PAUPORE: She did answer it.
 7
                THE COURT: Okay. I will ask that.
                                                      So why
8
    don't I just wait here and we'll have the jury brought
 9
    back in.
              We'll all stand when they come in.
       (Whereupon, the members of the jury enter the room.)
10
11
                THE COURT:
                            The record will reflect that the
12
    jurors have returned to the courtroom. The defendant
13
    and the attorneys are all present all of the attorneys
14
    and Ms. Brown is now on the witness stand. And, Ms.
15
    Brown, I had the jury questions here. I'll ask a
16
    question and then the lawyers can follow up.
                                                   I may ask
    two or three questions before they follow up if they're
17
18
    related.
19
                So, first question. When your lab processes
20
    something like fingernail clippings, are they able to
21
    detect chemical compounds other than DNA such as those
22
    from a Tyvek suit?
23
                THE WITNESS: Our company is strictly a DNA
    testing company. We don't perform any chemical tests.
24
25
                THE COURT: Mr. Paupore, did you want to
```

substance the DNA samples were from, like blood, skin

1 follow up on that? 2 MR. PAUPORE: No, Your Honor. 3 THE COURT: Mr. Hammond? 4 MR. HAMMOND: No. 5 How long time wise can THE COURT: Okay. 6 DNA be detected on an item? 7 THE WITNESS: That's a very common question, 8 but one that we haven't been able to answer. I can tell 9 you that I've worked on cases that are 20 years old and 10 we've gotten DNA from them. What happens is DNA can 11 degrade over time. If you ever see a dead body sort of 12 decay over time it's the same process; although, it is 13 happening on the cellular level. That does happen, but 14 the more dry and the more cool the sample is the more 15 likely we are to find DNA on it. 16 THE COURT: Mr. Paupore, follow up on that 17 question? 18 MR. PAUPORE: Does it depend then on the 19 environmental condition in which that DNA is located as 20 to making a determination of how long it could remain on 21 a particular item? 22 THE WITNESS: Again, I can't answer exactly 23 how long. I can't predict how long it will last, but it 24 is the environmental factors that affect the likelihood 25 of getting DNA from the item.

```
1
                MR. PAUPORE: Does the DNA then degrade?
 2
                THE WITNESS:
                               It does degrade over time.
 3
                THE COURT: Mr. Hammond?
 4
                MR. HAMMOND: One example of what you are
 5
    saying is that the stories about six months ago from
 6
    Egypt about the discovery of DNA in the tomb of the
 7
    Great Pharaoh?
 8
                THE WITNESS: That's a great example.
 9
                MR. HAMMOND: And that's at least 4,000
10
    years ago?
11
                THE WITNESS: Again, very dry, very cool
12
    atmosphere.
13
                THE COURT: Anything else on that point, Mr.
14
    Paupore?
15
                MR. PAUPORE: No, Your Honor.
16
                THE COURT: Okay. Next question.
17
    touch DNA will a rough surface, like on a pistol grip,
18
    give more, or is more likely to obtain more DNA cells
19
    versus a smooth metal surface like a grocery cart?
20
                THE WITNESS:
                               That's a very good question.
21
    Again, a lot of it depends on if the individual who is
22
    gripping it, how much they touch it, if they're sweating
23
    when they touch it, if they're natural shedders or not.
24
    All those come to be factors. But if you have the same
25
    person with the same exact handle under the same
```

```
1
    conditions, I would propose that a rough surface would
    collect DNA better than a smooth surface.
 2
 3
                 THE COURT: Mr. Paupore, follow up?
 4
                 MR. PAUPORE: As to the rough surface
 5
    reference in a pistol grip, can you get a mixture of DNA
 6
    cells?
 7
                 THE WITNESS: You can get a mixture, yes.
 8
                MR. PAUPORE: Same question for the grocery
 9
    cart handle?
10
                THE WITNESS: Yes.
                                     You can get a mixture.
11
                MR. PAUPORE: And it could be from whichever
12
    handled that golf cart before the person was using it at
13
    the present time?
14
                 THE WITNESS: Yes.
                                     That's possible.
15
                MR. PAUPORE:
                              Again, it depends upon those
16
    factors that you mentioned, the sweatiness of the hands,
17
    the last time they washed them?
18
                THE WITNESS: Yes. All those.
19
                MR. HAMMOND: Your Honor, I object to the
20
    last question on 703 grounds.
21
                THE COURT:
                           Sustained.
22
                MR. PAUPORE:
                               Thank you, Your Honor.
                                                       That's
23
    all the questions.
24
                THE COURT: Follow up on that question?
25
                MR. HAMMOND:
                              No, Your Honor.
```

1 THE COURT: First of all, Ms. Brown, would 2 you spell the term or the word allele? 3 THE WITNESS: Allele is spelled A-L-L-E-L-E. 4 THE COURT: The question is referring back 5 to testimony regarding Item 408, the lithium battery the 6 term allele was used. Clarify what the word allele 7 means in DNA analysis. 8 THE WITNESS: Certainly. When we use the 9 term allele we're referring to the version of the DNA 10 that you have. As you saw on the display of the profile 11 summary, those are represented by numbers. You may 12 recall we talked about STRs yesterday, stands for short 13 tandem repeat, and it is a sequence of DNA that is 14 repeated a specific number of times. The number of 15 times that sequence is repeated is that number that 16 shows up on that profile summary and that is it what we 17 are referring to when we say allele, we're referring to 18 that number. 19 THE COURT: Follow up Mr. Paupore? 20 MR. PAUPORE: No, Your Honor. 21 THE COURT: Mr. Hammond? 22 MR. HAMMOND: No. 23 THE COURT: Do you have any programs, 24 databases, et cetera, that you can run these DNA STR 25 profile to find a match? If so, why do a Y-STR if it

1 cannot be run? Two questions there, if you would like 2 can I repeat them. 3 THE WITNESS: Yes. 4 THE COURT: Do you have any programs, 5 databases, et cetera, that you can run these DNA STR 6 profiles through to find a map. 7 There is the National CODIS THE WITNESS: 8 Database. Our lab cannot enter the profiles into that 9 database, but we can give the profiles to the submitting 10 agency and then they can request to have those profiles 11 uploaded into the national database. That is called 12 CODIS. That is for the STR testing. We, as a private 13 lab, don't have a separate database, but that doesn't 14 mean that profiles we generated cannot be uploaded into 15 CODIS, just that we cannot do it. 16 What was the second question? 17 THE COURT: The second part: If so, why do 18 a Y-STR if it cannot be run? 19 THE WITNESS: Y-STR does have limitations, 20 one being it can't be uploaded into CODIS in certain 21 samples when there are overwhelming amount of female DNA 22 it is an extremely useful tool without Y-STR. 23 run a Y-STR test on the sample that has a lot of female 24 DNA, we may not be able to detect the male DNA at all.

-LOTT REPORTING, INC./928.776.1169

For particular sample times, for fingernails are

```
1
    proposed to have a high amount of female DNA or when we
 2
    quantitate them they are showed to have a high amount of
 3
    female DNA, Y-STR may be the only way to get any
 4
    information about the males that contributed to that
 5
    sample.
 6
                 THE COURT: Follow up, Mr. Paupore?
 7
                               No, Your Honor.
                MR. PAUPORE:
 8
                 THE COURT: Mr. Hammond?
 9
                MR. HAMMOND:
                               Just to clarify, Ms. Brown,
10
    you talked about the National CODIS Database, which is,
11
    as you said, a STR database. You are also aware that
12
    there are state CODIS databases?
13
                THE WITNESS: Yes. It is all one system,
14
    but there are different levels, the local level, state
15
    level and national level.
16
                MR. HAMMOND:
                               When people talk about
17
    submitting samples for STR testing they will often say
18
    we are going to do a local CODIS search or a state wide
19
    CODIS search or a national CODIS search?
20
                THE WITNESS: Ordinarily they are limited by
21
    the DNA profile as well.
                              There are more restrictions.
22
    The higher you go you can enter as far as anything you
23
    want to for the local level than say keyboard search,
24
    but as far as the state it has many requirements, how
```

many loci you have to have to complete the profile and

1 more strict rules for the national level. 2 usually what limits how far they can search. 3 MR. HAMMOND: When you say you can do a 4 keyboard search, you can't actually do a keyboard search 5 as established earlier today, your laboratory is not 6 empowered to do any comparisons and we don't need to 7 talk about what a keyboard search is, the bottom line, 8 your laboratory can't do a search itself? 9 That's correct. THE WITNESS: 10 MR. HAMMOND: You can ask, as you said 11 earlier, you can ask DPS or a state agency to do it, but 12 you couldn't do it? 13 THE WITNESS: That's correct. 14 MR. HAMMOND: And then on the Y-STR front, 15 are you aware that there are, in fact, databases available? 16 17 THE WITNESS: I have heard that some states 18 will maintain their own database. Again, we said that 19 you can enter the Y-STR profile into CODIS and they'll 20 maintain the information, they retain it for future use 21 hoping that one day you might have a searchable national 22 database, but there is no searchable national Y-STR 23 database that I'm aware of. 24 MR. HAMMOND: Staying on the state Y-STR

search database, are you aware whether the State of

-LOTT REPORTING, INC./928.776.1169

```
1
    Arizona has a Y-STR database?
 2
                THE WITNESS: I'm not aware if they have one
 3
    or not.
 4
                THE COURT: Mr. Paupore, anything on that?
 5
                MR. PAUPORE:
                               No.
 6
                THE COURT: If you have page six you were
 7
    going to ask a modified question with regard to part
    three?
 8
 9
                MR. PAUPORE: Alexis, did you receive any
10
    swabs from Carol Kennedy's face?
11
                THE COURT: Remember the phrasing of the
12
    question, Mr. Paupore.
13
                MR. PAUPORE:
                               I'm sorry.
14
                THE WITNESS: Let me refer to my notes and
15
    see.
16
                JUROR #4: Can you repeat the question
17
    because I don't understand what he asked.
18
                THE COURT: Mr. Paupore, repeat the question
    as modified.
19
20
                MR. PAUPORE: Did you receive a swab as
21
    labeled as coming from Carol Kennedy's face?
22
                THE WITNESS: I'm just clarifying one DNA
23
    extract to see what that was an extract of, maybe one of
24
    you can help me. Do you know what Item 426A is supposed
25
    to be?
            Oh, no wait. I have it right here.
                                                  It does not
```

```
1
    appear that we received such a swab, no.
 2
                 THE COURT: Mr. Paupore, did you have
 3
    anything else you wanted to ask along those lines?
 4
                 MR. PAUPORE:
                               No.
 5
                 THE COURT: Did you want to follow up, Mr.
 6
    Hammond?
 7
                 MR. HAMMOND:
                               No.
 8
                 THE COURT: When you find people's DNA like
 9
    in 603 and 605, why can't you add more amplifier to give
10
    you more to look at?
11
                               That's a very good question.
                 THE WITNESS:
12
    We do attempt to do that, but there is a maximum amount
13
    that we can add to the amplification reaction.
14
    get too much DNA in the reaction you get problems in the
15
    graph and make the data uninterpreted, for the major
16
    donor determines how much we add with the fingernail
17
    swabs that we performed. We had a limited amount of DNA
18
    we added everything that we had so the results that we
19
    had were all we had to make assessments with.
20
                THE COURT: Follow up, Mr. Paupore?
21
                MR. PAUPORE:
                               No, Your Honor.
22
                THE COURT: Mr. Hammond?
23
                MR. HAMMOND:
                               No.
24
                THE COURT:
                                    Would fingerprint dust
                             Okay.
25
    prevent or interfere with collecting and processing a
```

```
1
    touch DNA sample; i.e., like a door handle?
 2
                 THE WITNESS:
                               The only instance that I'm
 3
    aware of where fingerprint powder can interfere with the
 4
    DNA testing is if it is magnetic fingerprint powder and
 5
    the extraction you use rely on magnetic bead, so we do
 6
    not use that powder. So the answer would be no.
 7
                 THE COURT:
                             Follow up?
 8
                MR. PAUPORE:
                               No.
 9
                 THE COURT: Mr. Hammond?
10
                MR. HAMMOND: We spoke earlier today about
11
    the doorknob, which is, the evidence item was 805, and
12
    you recall I showed you the map of the home where the
13
    homicide occurred?
14
                THE WITNESS: I recall.
15
                MR. HAMMOND: And showed you the door that
16
    805 came from?
17
                THE WITNESS:
                                     I recall.
                               Yes.
18
                MR. HAMMOND:
                               Do you have any information
19
    from any source that that doorknob had ever been dusted
20
    for fingerprints?
21
                THE WITNESS:
                               No, I don't.
                                             I believe the
22
    only information that was sent to us was from the DNA
23
    testing that was done from the Arizona lab.
                                                   I'm not
24
    aware of any other testing that was done.
25
                MR. HAMMOND:
                               Thank you.
```

```
1
                 THE COURT: Mr. Paupore, did you have
 2
    anything further on that?
 3
                 MR. PAUPORE:
                               The last part of your question
 4
    [sic], what DPS testing were you looking at?
 5
                 THE WITNESS:
                               We --
 6
                 MR. PAUPORE: What did you have?
 7
                 THE WITNESS: We have an entire, let me see
 8
    what it is called. We have this very long list.
 9
                MR. HAMMOND: Your Honor, I think the
10
    witness has answered the question. This is no
11
    information that she received anything, ever indicated
12
    that anything had ever had fingerprint dust on it from
13
    any source, from any of these items.
14
                THE COURT: Mr. Paupore, your question
15
    again?
16
                MR. PAUPORE:
                               I'm asking what she is
17
    referring to to answer Mr. Hammond's question.
18
                THE COURT: Which was just a general
19
    question about what might interfere?
20
                MR. PAUPORE: He had mentioned that she
21
    looked at the doorknob picture and he wanted to know
22
    what if anything might have interfered when it was
23
    tested, that doorknob.
24
                MR. HAMMOND:
                               That is not what I asked her.
25
    I asked if there was any information, if there had been
```

```
1
    any fingerprint dust on the doorknob labeled as 805.
 2
                 THE COURT:
                             And your answer to that, Ms.
 3
    Brown?
 4
                               I had said that the
                 THE WITNESS:
 5
    information that we got from the Arizona lab was as to
 6
    the DNA testing that was performed at their lab, not any
 7
    other forensic testing.
 8
                 THE COURT: Now Mr. Paupore follow up to
 9
    that?
10
                               So are you able to know
                 MR. PAUPORE:
11
    whether there was any fingerprint dusting involved in
12
    that doorknob?
13
                 THE WITNESS:
                               No.
                                    I'm not able to know.
14
                 THE COURT: How can you determine which DNA
15
    goes with which, if you get a swab with more than one
16
    person's DNA?
17
                 THE WITNESS:
                               The only way we can tell that
18
    is if we have a significant split in the quantity of
19
    DNA, in which case we then pull out what we call a major
20
    donor.
            You heard us talking about the major Y-STR DNA
21
    profile.
              If there is enough DNA from one person that's
22
    present in a greater quantity than the DNA from the
23
    other contributors, then we can pull that out because
24
    the peaks on the graph would be much higher than the
25
    other peaks and then we can say that those must all go
```

```
1
    together into a single DNA profile and have come from
 2
    one person.
 3
                             Follow up, Mr. Paupore?
                 THE COURT:
 4
                 MR. PAUPORE:
                               Yes. Could you define for us
 5
    what you mean by a significant split in the DNA?
 6
                 THE WITNESS: It depends on if you are
 7
    talking about the kind of result that you have at the
 8
    particular locus. But, generally speaking, you want to
 9
    see those peaks at least twice as high as the peaks of
10
    the minor component.
11
                MR. PAUPORE: And that information tells you
12
    that there is more than one donor?
13
                 THE WITNESS:
                               It can, yes.
14
                MR. PAUPORE: And that would be the
15
    significant split, the height of the peaks?
16
                THE WITNESS:
                               Yes.
17
                MR. PAUPORE: How many, was there any
18
    significant splits on Item 603?
19
                THE WITNESS:
                               Yes.
                                     That is why we declared
20
    a major DNA profile.
21
                MR. PAUPORE: How many were there?
22
                THE WITNESS: How many major DNA profiles
2.3
    were there?
24
                MR. PAUPORE:
                                    How many peaks?
                               No.
25
                THE WITNESS:
                               Oh, for the major we didn't
```

```
1
    identify that.
 2
                 MR. PAUPORE:
                               Was there a DNA split on Item
 3
    603?
 4
                 THE WITNESS:
                               Yes.
 5
                 MR. PAUPORE:
                               That split was from the major
 6
    to the minor mixtures?
 7
                 THE WITNESS:
                               Yes.
 8
                 MR. PAUPORE:
                               How many were there?
 9
                 THE WITNESS:
                               I'm sorry, how many what were
    there?
10
11
                 MR. PAUPORE:
                               Splits.
12
                 THE WITNESS:
                               I'd have to -- that's, again,
13
    I went over this when Mr. Hammond was questioning me.
14
    He was asking what the major donor profile was, what
15
    particular alleles made up major donor profile.
16
    mentioned that we didn't go through and identify the
17
    particular alleles.
18
                 MR. PAUPORE: But this is a split between
19
    the major profile and the minor mixture?
20
                 THE WITNESS:
                               Yes.
21
                MR. PAUPORE: My question goes to how many
22
    splits?
23
                THE WITNESS: You're basically asking the
24
    same question that Mr. Hammond asked. You are asking me
25
    to identify the major donor alleles when you say how
```

```
2
    loci we could identify. The major donor was not an
 3
    assessment we made during the analysis.
 4
                 MR. PAUPORE:
                               Is split different than
 5
    mixture?
 6
                 THE WITNESS: When I say split I'm talking
 7
    about the peak heights. Usually it is the number of the
 8
    alleles at a given locus that lets you know that there
 9
    is a mixture present.
10
                MR. PAUPORE:
                               Thank you.
11
                 THE COURT: Follow up, Mr. Hammond?
12
                MR. HAMMOND:
                               But if we did haul out your
13
    graphs or your electropherogram, what we would see at
14
    one location after another is a peak height that you had
15
    determined was significantly larger than any of the peak
16
    heights that you saw at that location?
17
                THE WITNESS:
                               That's true.
18
                MR. HAMMOND:
                               Thank you.
19
                THE COURT: Anything else?
20
                MR. PAUPORE:
                               No, Your Honor.
21
                THE COURT:
                            Next question. When you break
22
    down the cells to get the DNA, does it break down the
23
    double helix as well?
24
                THE WITNESS:
                               The double helix that they are
25
    referring to is that DNA is double stranded and it is
```

many splits there were. It would have to identify which

```
1
    connected and it's got a turning sort of feature to it,
 2
    it looks like a ladder that has been twisted, and when
 3
    you break that open that is called denaturing. When you
 4
    break those two pieces apart, our organic extraction
 5
    that we perform leaves the DNA double stranded during
 6
    that dejection process. For the later steps we do need
 7
    to denaturement DNA when we need to amplify it that will
 8
    happen at the amplification step, not during the
 9
    dejection.
10
                THE COURT: Follow up, Mr. Paupore?
11
                MR. PAUPORE:
                               Does that mean that the double
12
    helix is split at some process in the DNA analysis?
13
                THE WITNESS:
                               Yes, it is.
14
                THE COURT: Mr. Hammond?
15
                MR. HAMMOND: No questions.
16
                THE COURT:
                                    Next question.
                           Okay.
                                                    How can
17
    you tell if something is true DNA or not or animal
18
    versus human DNA; i.e., a dog?
19
                THE WITNESS: Our DNA is human specific.
                                                            Ιf
20
    it is not human DNA we will not get a profile.
21
                THE COURT:
                           Follow up?
22
                MR. PAUPORE:
                               Is there a program that you
23
    use to determine that?
24
                                    Just the nature of the
                THE WITNESS: No.
25
    chemicals that we use only detects human sequences.
```

think they've gotten partial profiles from higher things 1 2 that people are partially related to. But dogs and 3 other mammals we don't get a DNA profile for no matter 4 how much DNA is present. 5 MR. PAUPORE: It is a test that is done to 6 test if it is human or not? 7 THE WITNESS: Right. It is very DNA 8 specific. 9 THE COURT: Mr. Hammond? 10 MR. HAMMOND: No. 11 THE COURT: Did you get a full DNA profile 12 on Number 603, your 10B, Y-STR? 13 THE WITNESS: Yes, we did. 14 THE COURT: Follow up, Mr. Paupore? 15 MR. PAUPORE: And you also received that 16 mixture that we talked about in the 603? 17 THE WITNESS: I'm sorry, I can't hear you. 18 MR. PAUPORE: And you also detected DNA 19 mixtures along with that major? THE WITNESS: Yes, we did. 20 21 THE COURT: Mr. Hammond? 22 MR. HAMMOND: No. 23 THE COURT: Next question. Where on Carol's hand did Item 611, your 10C, come from? Fingernails or 24 25 someone somewhere else on hand?

LOTT REPORTING, INC./928.776.1169 -

```
1
                 THE WITNESS: That I do not know.
                                                    We just
 2
    received a swab so the swabbing was taken by somebody
 3
    else and I don't have that information.
 4
                 THE COURT: Follow up, Mr. Paupore?
 5
                               Yes, Your Honor.
                 MR. PAUPORE:
                                                 And how
 6
    many, again, mixtures did you get on the Item 611, your
 7
    10C?
 8
                 THE WITNESS: You mean how many male donors
 9
    did we detect?
10
                MR. PAUPORE: Yes.
11
                THE WITNESS: At least three.
12
                MR. PAUPORE:
                               Thank you.
13
                THE COURT: Mr. Hammond?
14
                MR. HAMMOND:
                               The question asked about
15
    whether some of the DNA could have come from the
16
    fingernails. Your assumption throughout the process is
17
    that the fingernails were separately swabbed?
18
                THE WITNESS: That is my understanding.
19
                MR. HAMMOND: So when you are thinking about
20
    the hand, again, the left hand, you were thinking about
21
    a swab that had been done of something other than the
22
    fingernail?
23
                THE WITNESS: That's my understanding, yes.
24
                MR. HAMMOND:
                               Thank you.
25
                THE COURT: Can you tell the type of
```

substance the DNA samples are from like blood, skin cells, saliva?

certain body fluids. We can do a test for blood, semen and/or saliva. Ordinarily the agencies that requests the DNA has to request that test. If we feel that it would be probative for them, meaning that it would give some value to their case, we ask them if they want it done. It is an additional fee though, so not all agencies want it done, and some of them have already performed that test themselves before sending it to us so it doesn't need to be done. So, yes, we can do those tests if they request it.

THE COURT: Follow up?

MR. PAUPORE: Can you tell where it came from? Does it come from blood or skin cells or saliva?

Do you have a way of knowing where that DNA came from?

THE WITNESS: Do you mean like menstrual

blood or like I cut my arm and I'm bleeding?

MR. PAUPORE: Well, the substance itself, the DNA substance that you tested, can you tell where it came from on the body?

THE WITNESS: I'm sorry, I don't understand your question.

MR. PAUPORE: The question is, can you tell

```
a type of substance the DNA samples are from, like
 1
 2
    blood, skin cells, or saliva?
 3
                               We can tell if blood or saliva
                THE WITNESS:
 4
    or semen is present on the item and if we do a DNA test,
 5
    if that body fluid is present, it is more than likely
 6
    that the DNA came from that body fluids because those
 7
    body fluids contain very high amounts of DNA.
 8
    were not to perform those tests then I wouldn't be able
 9
    to tell you necessarily the source of the DNA.
10
    that answer the question?
11
                MR. PAUPORE:
                               Yes.
                                     Thank you.
12
                THE COURT: Mr. Hammond?
13
                               When you receive, as you did
                MR. HAMMOND:
14
    in this case, an extract, can you tell from the extract
15
    whether that's an extract of blood, semen, or saliva.
16
                THE WITNESS:
                               No, we cannot.
17
                MR. HAMMOND:
                               When you receive a swab can
18
    you tell whether that swab comes from blood, semen, or
19
    saliva?
20
                              Again, only if we performed
                THE WITNESS:
21
    those specific tests.
22
                MR. HAMMOND: And in this case, in any of
23
    the work that you were involved in, which is as we said
24
    all work that you did this year, was there ever a time
25
    when you were asked to determine the source of the DNA;
```

```
1
    i.e., whether it came from blood, saliva, or semen?
 2
                THE WITNESS:
                               I don't believe so.
 3
                THE COURT: Mr. Paupore, anything else on
 4
    this point?
 5
                MR. PAUPORE:
                               No, Your Honor.
 6
                THE COURT: Counsel, may Ms. Brown be
 7
    excused as a witness?
 8
                MR. PAUPORE: State asks that she be
 9
    excused.
10
                MR. HAMMOND: I believe she can be, but
11
    can't be totally excused at this point.
12
                THE COURT: Ms. Brown, you can be excused
13
    from the courtroom, but you are subject to recall.
14
    want to remind you about the rule of exclusion of
15
    witnesses. I did explain this once, but it does mean
16
    that you cannot communicate with any other witness about
17
    this case or your testimony until the trial is
18
    completely over. It is a good idea not to talk to
19
    anybody about the case until the trial is over; however,
20
    you can talk with the attorneys as long as another
21
    witness is not present. Do you understand?
22
                THE WITNESS:
                               I do.
23
                THE COURT: You are temporarily excused
24
    anyway, subject to possible recall please. Watch your
25
    step as you step down.
```

THE WITNESS: Thank you, sir.

THE COURT: We will go ahead and take the evening recess. Ladies and gentlemen, please remember all the aspects of the admonition and follow that admonition and please be in the jury room by 9 a.m. tomorrow morning. We'll start as soon as we can after that.

(Whereupon, the jury leaves the room.)

THE COURT: The jury is not present. The attorneys are present. Is it preferable to do the follow up to each question now that we've done that?

Does anyone have a preference to me? It seems things focused --

MR. HAMMOND: It makes sense.

MR. PAUPORE: I like what you did.

THE COURT: Part two. I'm not going to discuss this in detail now, but there is the question we had yesterday regarding a jury matter and I'm going to ask that you look at Rule 18.6 and the comments because I do anticipate having a different procedure with regard to access to materials, admonitions, and things like that. So I ask two things or actually direct two things that you do, please. One, read the preliminary instructions, particularly the admonition and what has been given to them closely, and also Rule 18.6 of the

```
1
    rules of procedure. Thank you.
 2
                MR. SEARS: And the comments to the rule as
 3
    well?
 4
                THE COURT: Yes.
 5
                MR. HAMMOND: Judge, can I ask just a
 6
    question about the starting time tomorrow.
 7
                THE COURT:
                             9:00.
 8
                MR. HAMMOND: Has something happened with
 9
    the bridge that was out? I think when we went to 9:15 I
10
    thought it was because of a juror request because of a
11
    bridge being out.
12
                THE COURT: You have that question.
                                                       I think
13
    you all have a copy and --
14
                MR. HAMMOND: Is that juror going to be able
15
    to --
16
                THE COURT: On Fridays she doesn't have the
17
    problem, just on the other days.
18
                MR. HAMMOND: Thank you.
19
                THE COURT: Okay. We're in recess.
                                                       Thank
20
    you.
21
       (The proceedings concluded at 4:57 p.m., September 2,
22
    2010.)
23
24
25
```

REPORTER'S CERTIFICATE The above and foregoing is a true and complete transcription of my stenotype notes taken in my capacity as Acting Official Reporter of Yavapai County Superior Court, Court Reporter #50612, Division VI, at the time and place as above set forth. Dated at Prescott, Arizona, this 30th day of June, 2011. ASHLEE MANGUM Court Reporter #50612 Registered Professional Reporter FILED ON

-LOTT REPORTING, INC./928.776.1169 ---